



National Energy Board



Reasons for Decision

Express Pipeline Ltd.

OH-1-95



June 1996

Facilities and Toll Methodology

National Energy Board

Reasons for Decision

In the Matter of

Express Pipeline Ltd.

Application dated 8 June 1995, as amended,
for the Express Pipeline Project

OH-1-95

June 1996

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represented by the National Energy Board

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Abbreviations

ADOE	Alberta Department of Energy
AEC	Alberta Energy Company Ltd.
Amoco	Amoco Canada Petroleum Company Ltd.
b/d	barrels per day
BER	Montana Board of Environmental Review
Big West	Big West Oil Company
BLM	U.S. Department of the Interior, Bureau of Land Management
Board or NEB	National Energy Board
BS&W	bottom sediments and water
Butte	Butte Pipe Line Company
CAPP	Canadian Association of Petroleum Producers
CEAA	<i>Canadian Environmental Assessment Act</i>
CENEX	CENEX Inc.
Cochin	Cochin Pipe Lines Ltd.
Conoco	Conoco Inc.
CSA	Canadian Standards Association
DFO	Department of Fisheries and Oceans
D/I DET	density and interface detection
EAI	Energy Analysts International Inc.
Express, the Applicant, or the Company	Express Pipeline Ltd.
FERC	(U.S.) Federal Energy Regulatory Commission
Filing Guidelines	Board's <i>Guidelines for Filing Requirements</i> dated February 1995

Friends of Express or FOX	Group of petroleum producers comprised of Crestar Energy Inc., ELAN Energy Inc., Fletcher Challenge Petroleum Inc., Gulf Canada Resources Limited, Morgan Hydrocarbons Inc., Numac Energy, PanCanadian Petroleum Limited, Rigel Oil & Gas Limited, Sceptre Resources Limited, and Wascana Energy Inc.
Frontier	Frontier Oil Corporation
Gibson	Gibson Petroleum Company Limited
Husky	Husky Oil Operations Ltd.
Imperial	Imperial Oil Limited
IPL	Interprovincial Pipe Line Inc.
IPL (NW)	Interprovincial Pipe Line (NW) Ltd.
Joint Panel Agreement or Agreement	"Agreement Between the National Energy Board and the Minister of the Environment Concerning Joint Establishment of a Review Panel for the Express Pipeline Project" dated 13 September 1995
Joint Panel Report	"Express Pipeline Project - Report of the Joint Review Panel" dated May 1996
km	kilometre
kPa	kilopascal
kW	kilowatt
Koch	Koch Oil Company Limited, Bow River Pipe Lines Ltd., and Koch Pipelines Ltd.
Lakehead	Lakehead Pipe Line Company, Inc.
LLB	Lloydminster crude
m	metre
m ³	cubic metre
m ³ /d	cubic metre per day
Memorandum of Guidance	Board's <i>Memorandum of Guidance on the Regulation of Group 2 Companies</i> dated 6 December 1995
Minister	Minister of the Environment
mm	millimetre
NEBA	<i>National Energy Board Act</i>

NEB Supply/ Demand Report	Board's "Canadian Energy Supply and Demand 1993-2010" Report dated 1994
Netherland Sewell	Netherland Sewell and Associates Inc.
NPS	nominal pipe size (in inches)
O.D.	outside diameter
PADD	Petroleum Administration for Defense District
Panel	Joint Review Panel
Phillips	Phillips 66 Company
Platte	Platte Pipeline Company
Project	Express Pipeline Project
Purvin & Gertz	Purvin & Gertz, Inc.
RMEC	Rocky Mountain Ecosystem Coalition
SCADA	Supervisory Control and Data Acquisition
SEP	System Expansion Project
TCPL	TransCanada PipeLines Limited
Texaco	Texaco Pipeline Inc.
Trans Mountain	Trans Mountain Pipe Line Company Ltd.
U.S.	United States of America
\$US	United States dollars
Wascana	Wascana Pipe Line Ltd.
WCSB	Western Canada Sedimentary Basin

Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* ("the NEBA") and the Regulations made thereunder;

AND IN THE MATTER OF an application dated 8 June 1995 by Express Pipeline Ltd., as amended, pursuant to Parts III and IV of the NEBA for a Certificate of Public Convenience and Necessity and for certain toll and tariff orders;

AND IN THE MATTER OF the National Energy Board Hearing Order OH-1-95.

HEARD in Calgary, Alberta on 15-19, 22-26, and 29-31 January 1996, 1, 2, 5-9, 12-15, 20, 21, 23, and 26-29 February 1996, and 4-7 March 1996.

BEFORE:

R. Priddle	Presiding Member
A. Côté-Verhaaf	Member
G.M. Lewis	Member
R.D. Revel	Member

APPEARANCES:

L.G. Keough J.M. Liteplo S. Denstedt	Express Pipeline Ltd.
J.J. Klimek	Alberta Fish and Game Association, Alberta Wilderness Association, and Federation of Alberta Naturalists
N.J. Schultz	Canadian Association of Petroleum Producers
E. Wolf	Native Canadian Petroleum Association
M.D. Sawyer N.C. Conrad	Rocky Mountain Ecosystem Coalition
D.A. Holgate	Amoco Canada Petroleum Company Ltd.
K.F. Miller	Bow River Pipe Lines Ltd., Koch Oil Co. Ltd., and Koch Pipelines Ltd.
F.M. Saville, Q.C. C.K. Yates	CENEX Inc. Murphy Oil Company Ltd.

C.K. Yates	Wascana Pipe Line Ltd., Texaco Pipeline Inc., and Butte Pipe Line Company
N. Gretener	Crestar Energy Inc., ELAN Energy Inc., Fletcher Challenge Petroleum Inc., Gulf Canada Resources Limited, Morgan Hydrocarbons Inc., Numac Energy, PanCanadian Petroleum Limited, Rigel Oil & Gas Limited, Sceptre Resources Limited, and Wascana Energy Inc.
G. Murray	EOTT ENERGY Canada Limited Partnership
P. Cochrane	Foothills Pipe Lines Ltd.
G.B. Faudel	Frontier Oil and Refining Company
R. Garner	Flying J, Inc. and Big West Oil Company
L.L. Manning	Gibson Petroleum Company Ltd.
H.R. Huber D.G. Davies	Imperial Oil Limited
W.M. Moreland	Interprovincial Pipe Line Inc.
C.B. Woods	Mobil Oil Canada
S.R. Miller	Petro-Canada
T. Rankin	Phillips 66 Company
B. Tanaka	Shell Canada Limited
M.W.P. Boyle	Trans Mountain Pipe Line Company Ltd.
A. Reid P.A. McCunn-Miller	Alberta Department of Energy
J. Hanebury C. McKinnon	Board Counsel

Overview

(Note: This overview is provided for the convenience of the reader and does not constitute part of these Reasons for Decision, to which readers are referred for details.)

The Application

On 8 June 1995, Express Pipeline Ltd. ("Express") applied pursuant to Part III of the *National Energy Board Act* ("NEBA") for a Certificate of Public Convenience and Necessity to authorize the construction and operation of a crude oil transmission pipeline in southern Alberta and pursuant to Part IV of the NEBA for certain orders respecting toll methodology and tariffs.

The Canadian portion of the proposed Express Pipeline would consist of approximately 435 kilometres ("km") of 610 millimetre diameter pipeline extending south from Hardisty, Alberta to the international border near Wild Horse, Alberta, as well as associated terminalling, storage, and pumping facilities. The connecting U.S. pipeline would terminate at the Casper, Wyoming transportation hub and would be owned by Express Pipeline Inc. From this point, the oil could access PADD IV and southern PADD II markets. The estimated capital cost of the Canadian portion of the pipeline is approximately \$207 million.

The pipeline would be capable of transporting a variety of crude oil types and is planned to have an initial capacity of approximately 27 400 cubic metres (172,000 barrels) per day, with linefill scheduled to commence in December 1996.

Joint Panel Review

The Express Pipeline Project also falls under the *Canadian Environmental Assessment Act* ("the CEAA"). The *Comprehensive Study List Regulations* made pursuant to the CEAA require that a comprehensive study of the proposal be performed, since more than 75 km of new right-of-way would be needed for the pipeline.

On 13 September 1995, the Minister of the Environment ("the Minister") and the National Energy Board ("the Board" or "NEB") finalized an Agreement whereby the application would be heard by a Joint Review Panel ("the Panel") consisting of two permanent Board Members (including the Panel chair) and two other persons jointly nominated by the Minister and the Board and appointed by the Governor-in-Council as temporary Board Members. The Agreement also provided that the Panel would hear, decide, and make recommendations on all matters relevant to the application and falling within its jurisdiction under the NEBA and the CEAA.

On 8 November 1995, following the appointment of the Panel Members, the Directions on Procedure governing the public hearing to be conducted in respect of the Express Pipeline proposal were finalized. Further to Order OH-1-95, the Board conducted an oral hearing in Calgary, Alberta between 15 January 1996 and 7 March 1996, involving a total of 34 hearing days.

Environmental Assessment

The results of the Panel's examination of the environmental effects likely to result from the proposed Express Pipeline Project are detailed in a separate Joint Panel Report that was released on 21 May 1996.

Roland Priddle, Anita Côté-Verhaaf, and Richard Revel, three of the four Panel Members, concluded that the Project is not likely to cause significant adverse environmental effects, provided that Express's proposed mitigation measures and the set of 39 recommendations contained in the majority decision are followed. Among the recommendations is the requirement that Express comply with the proposed August to November construction schedule unless otherwise allowed by the Board.

A dissenting opinion was provided by Glennis Lewis, the fourth Panel Member. In Dr. Lewis's opinion, Express failed to provide adequate evidence in regard to effects on vegetation and wildlife, as well as cumulative effects, from both a legal and scientific perspective. According to Dr. Lewis, Express placed so much faith in mitigation and reclamation matters that a thorough analysis of both the environmental effects and the cumulative effects of the Project was not undertaken. She therefore recommended that the Project not proceed.

Dr. Lewis dissented from these Reasons for Decision on similar grounds, while the other three Panel Members adopted the majority view set out in the Joint Panel Report on behalf of the Board and in accordance with the Government of Canada's response to the Joint Panel Report.

Traffic, Tolls and Tariffs

Express applied for an order approving a market-based toll methodology, as well as an order designating Express as a Group 2 company for purposes of Board toll and tariff regulation.

Express's proposed initial toll schedule reflects four tiers of service. The toll for monthly apportioned service is the highest and is proposed to vary with market conditions. Lower tolls were proposed for shippers who subscribed to 5, 10, and 15 year transportation service agreements as a result of the open season conducted by Express during the autumn of 1995 (tolls decrease with length of term).

The Board is of the view that the tiered service structure proposed by Express does not contravene the common carrier obligations imposed on oil pipelines by Part IV of the NEBA, as all potential shippers were given equal opportunity to contract for long-term access to the pipeline. The Board also considers that Express's proposed tolling methodology is appropriate and that the proposed initial tolls are just and reasonable.

The Board has decided that complaint-basis regulation as a Group 2 company is appropriate for Express, and notes that both contract shippers and uncommitted shippers would be free to complain to the Board if they are of the opinion that the tolls set by Express are no longer just and reasonable.

Canadian Crude Oil Supply

The Board accepts as reasonable the domestic crude oil supply projections to the year 2005 submitted by Express for its base and sensitivity cases. For the period beyond 2005, the Board accepts the argument of Express that the magnitude of the western Canadian crude oil resource base, and the likelihood of continued technological progress in the recovery of this resource, provide assurance that adequate supplies of western Canadian crude oil will be available to the proposed pipeline.

Markets and Competitiveness

The Board is of the view that the North American crude oil market is part of the global market and can generally obtain supplies of crude oil from indigenous sources or from abroad. New pipelines connecting producing and consuming regions within this continental market will change the market dynamics in a way that cannot be predicted with certainty. The Board, however, considers the existence of signed long-term transportation service agreements to be strong evidence of the need for the Express Pipeline. The Board is of the view that the Project will benefit the Canadian crude oil producing sector by increasing the amount of competition in the pipeline sector and the number of transportation options and markets available to producers.

Disposition

The Board has found that the proposed Express Pipeline is and will be required by the present and future public convenience and necessity, provided that the conditions outlined in the OH-1-95 Reasons for Decision are met.

Chapter 1

Introduction

1.1 The Application

On 8 June 1995, Express Pipeline Ltd. ("Express", "the Applicant", or "the Company") applied pursuant to Part III of the *National Energy Board Act* ("NEBA" or "the Act") for a Certificate of Public Convenience and Necessity to authorize the construction and operation of a crude oil transmission pipeline in southern Alberta and pursuant to Part IV of the NEBA for certain orders respecting toll methodology and tariffs.

Express is a company owned 50% by Alberta Energy Company Ltd. ("AEC") and 50% by TransCanada PipeLines Limited ("TCPL").

The Canadian portion of the proposed Express Pipeline would consist of approximately 435 kilometres ("km") of 610 millimetre ("mm") diameter pipeline extending south from Hardisty, Alberta to the international border near Wild Horse, Alberta, as well as associated terminalling, storage, and pumping facilities. The United States ("U.S.") portion of the pipeline, to be owned by Express Pipeline Inc., would continue across the state of Montana and terminate at the Casper, Wyoming transportation hub. From this point, the oil could access PADD IV and southern PADD II markets.¹ The estimated capital cost of the Canadian portion of the pipeline is approximately \$207 million.

The applied-for facilities are depicted in Figures 1-1 and 1-2, and are more particularly described in Chapter 2.

The pipeline would be capable of transporting a variety of crude oil types and is planned to have an initial capacity of approximately 27 400 cubic metres per day ("m³/d") (172,000 barrels per day ("b/d")), with linefill scheduled to commence in December 1996.

1.2 Joint Panel Review

The Express Pipeline Project ("the Project") also falls under the *Canadian Environmental Assessment Act* ("the CEAA"). The *Comprehensive Study List Regulations* made pursuant to the CEAA require that a comprehensive study of the proposal be performed, since more than 75 km of new right-of-way would be needed for the pipeline.

¹ The Petroleum Administration for Defense Districts ("PADDs"), the geographic boundaries of which are shown in Figure 6-1, are used to define U.S. crude oil market areas.

Figure 1-1
Express Pipeline Project

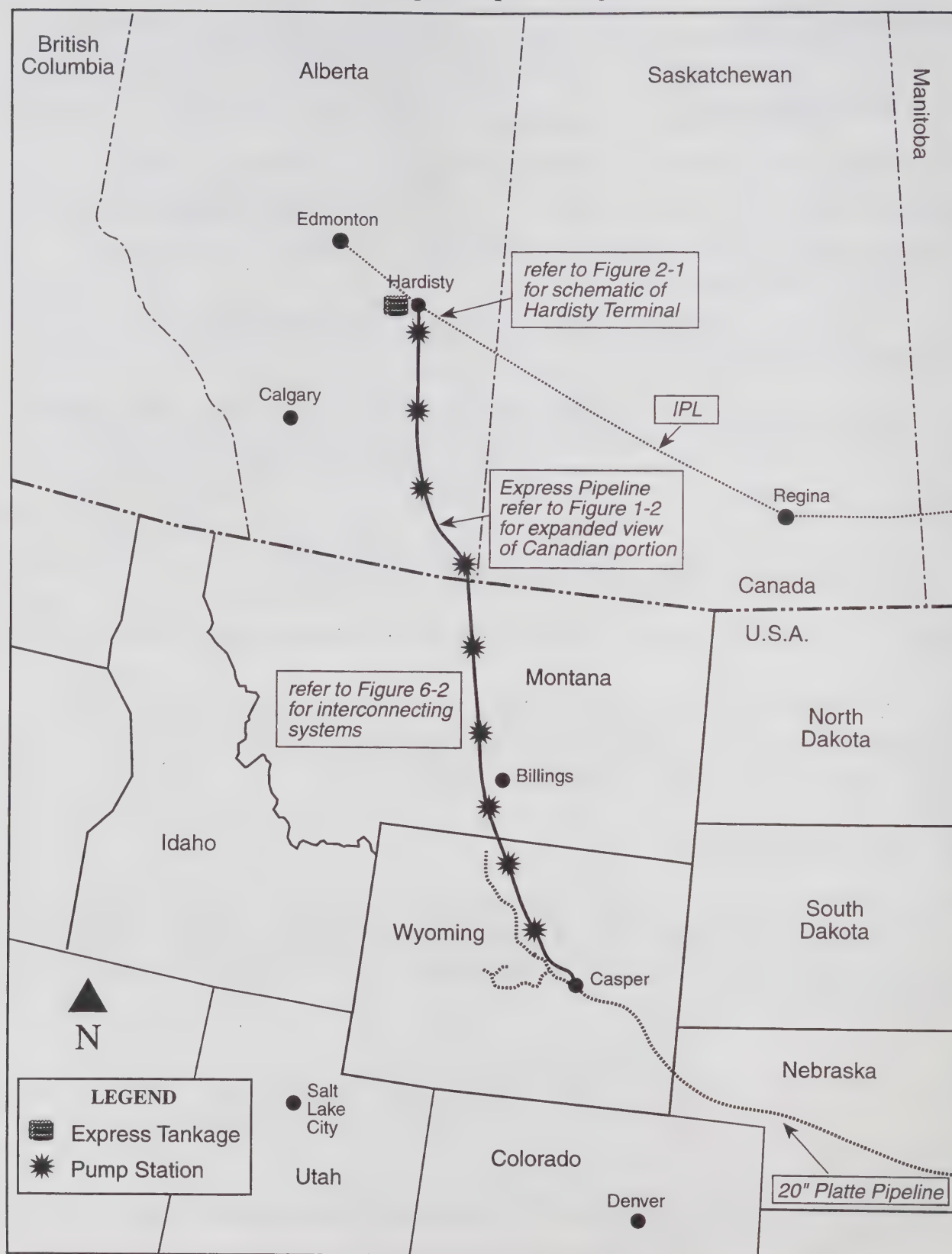
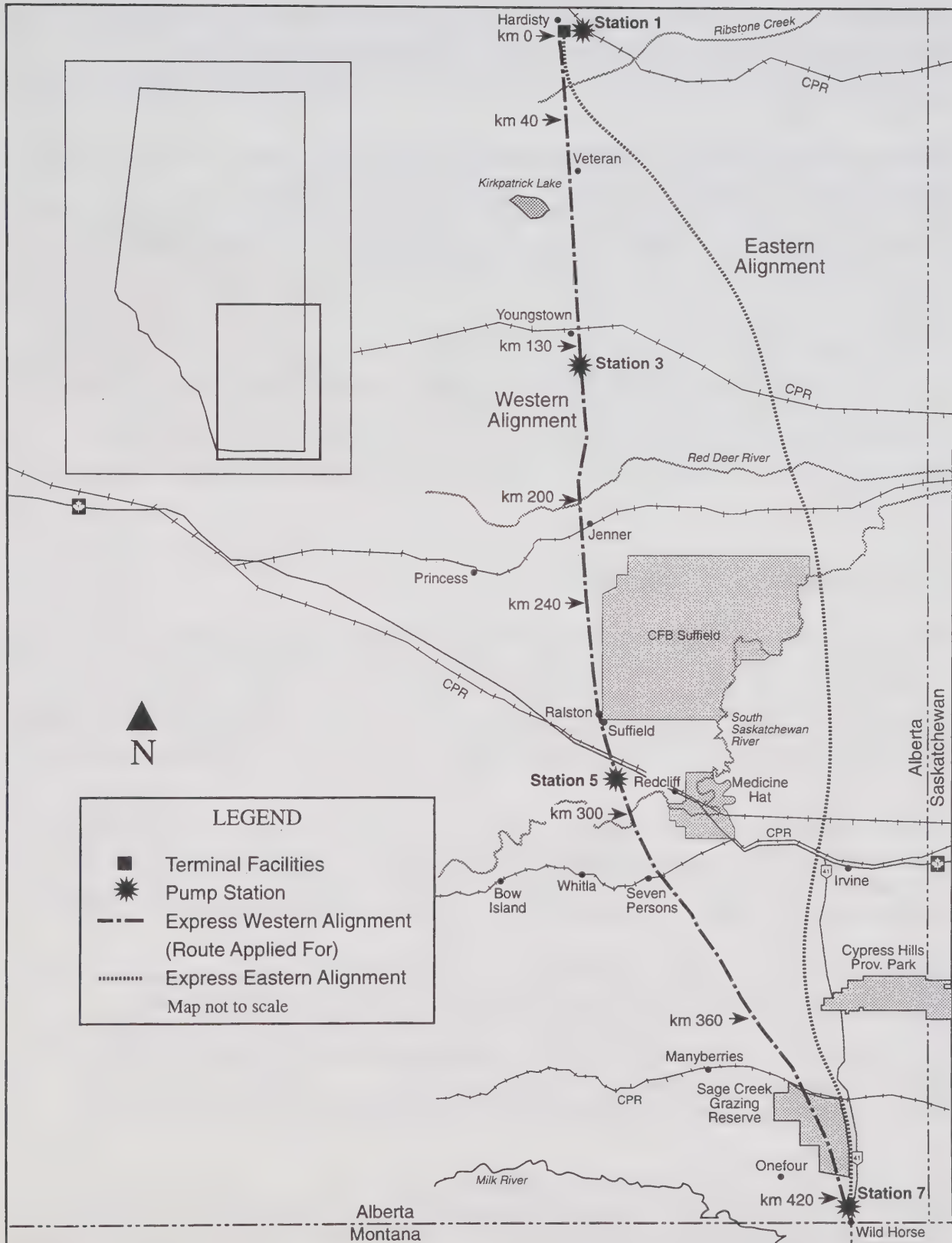


Figure 1-2
Express Pipeline Project
General Area & Routing Alternatives



On 13 September 1995, the Minister of the Environment ("the Minister") and the Board finalized an Agreement whereby the application would be heard by a Joint Review Panel ("the Panel") consisting of two permanent Board Members (including the Panel chair) and two other persons jointly nominated by the Minister and the Board and appointed by the Governor in Council as temporary Board Members. The Agreement also provided that the Panel would hear, decide, and make recommendations on all matters relevant to the application and falling within its jurisdiction under the NEBA and the CEAA.

On 8 November 1995, following the appointment of the Panel Members, the Directions on Procedure governing the public hearing to be conducted in respect of the Express Pipeline proposal were finalized (reference Appendix I for the associated list of issues that appeared in the hearing order). Further to Order OH-1-95, the Board conducted an oral hearing in Calgary, Alberta between 15 January 1996 and 7 March 1996, involving a total of 34 hearing days.

The mandate of the Panel to consider environmental and socio-economic matters is found under both the CEAA and the NEBA. In relation to environmental issues both legislative mandates were satisfied by the environmental assessment that is detailed in a separate Joint Panel Report released, pursuant to the CEAA, May 1996 and summarized in Chapter 3 of these Reasons for Decision.¹ For socio-economic matters, some issues were outside the scope of the CEAA and were considered only pursuant to the NEBA. The balance of these Reasons for Decision addresses the Panel's mandate under the NEBA.

1.3 Completeness of Application

During the first day of the oral hearing, concerns were raised by the Rocky Mountain Ecosystem Coalition ("RMEC") about the completeness of the application. More specifically, the RMEC submitted that Express had failed to comply with certain aspects of the Board's *Guidelines for Filing Requirements* ("the Filing Guidelines"), such as the identification of specific supply pools. The RMEC sought direction from the Board as to whether the Applicant should be required to seek explicit relief from those requirements.

The Board ruled that explicit relief should be sought. As a result, Express filed a written request for exemption. The request encompassed supply particulars, capital cost estimate particulars, cost-of-service information, and land zoning and classification particulars. Express's rationale for exemption was that the matters covered by the request for relief were not relevant to the application at hand.

Following argument on the matter, the Board decided to grant the relief that had been requested. The Board emphasized in its ruling that the purpose of the Filing Guidelines is to ensure that an application is ready to be set down for hearing, and that relief was being granted in that context. The Board further noted that the granting of relief does not change the burden of proof, adding that the Applicant must still satisfy the Panel that the proposed facilities are in the public convenience and necessity, as required by section 52 of the NEBA, and that the toll orders requested should also be

¹ Copies of the report entitled "Express Pipeline Project - Report of the Joint Review Panel" and released 21 May 1996 (ISBN 0-662-24494-X) are available from the Board and the Canadian Environmental Assessment Agency. Reference can be made to Appendix I of that report for a copy of the Joint Panel Agreement signed by the Minister of the Environment and the Chairman of the Board on 13 September 1995.

granted. The Board further clarified that it was open for intervenors to argue that the burden of proof has not been discharged by the Applicant on the evidence filed.

The issue of compliance with the Filing Guidelines was raised again by the RMEC during the third week of the hearing. On this occasion, the RMEC brought a motion that the Application should be dismissed on the basis that Express had failed to comply with certain aspects of the Filing Guidelines relating to fish and terrestrial wildlife.

The Board dismissed the motion, stating that it was satisfied that the Applicant had filed information about the fish and terrestrial wildlife that may be affected by the Project, as required by the Filing Guidelines. The Board's view was that the RMEC was taking issue with the sufficiency of the Applicant's evidence on fish and wildlife, and the validity of the scientific studies submitted by the Applicant, both of which relate to the burden of proof that the Applicant must meet. Consistent with its previous ruling, the Board advised the RMEC that it could argue whether that burden of proof had been met.

The complete texts of the two Board rulings are presented in Appendix II.

Chapter 2

Facilities

2.1 Mainline Design and Interconnecting Facilities

The Express Pipeline is designed to deliver various types of crude oil from Hardisty, Alberta to Casper, Wyoming. The Canadian portion of the Express Pipeline, illustrated in Figure 1-2, has an estimated capital cost of \$207 million and would involve the construction of the following facilities:

- 435 km of 610 mm outside diameter ("O.D.") mainline from Hardisty, Alberta to the international border near Wild Horse, Alberta;
- four pump stations, each equipped with two centrifugal pumps in a series configuration. At Stations 1, 3, and 5, each pump would be driven by a 3 000 kilowatt ("kW") electric motor. At Station 7, each pump would be driven by a 3 000 kW reciprocating engine. Station 7 would also have two 334 m³ fuel storage tanks; and
- four 24 000 m³ storage tanks at the Hardisty Terminal.

The U.S portion of the Express Pipeline system, to be owned and operated by Express Pipeline Inc., would consist of 828 km of 610 mm O.D. pipeline from the international border near Wild Horse, Alberta to Casper, Wyoming and five pump stations.

The capacity of the Express Pipeline system would be 27 400 m³/d (172,000 b/d), and could be increased through the addition of intermediate pump stations to a capacity of approximately 45 100 m³/d (282,000 b/d).

Express selected this mainline design following consideration of an alternate design incorporating a 508 mm O.D. mainline with six pump stations on the Canadian portion of the line. Express's evidence is that the 610 mm, four-station design provides greater capacity and expansion potential at a lower cost per unit of throughput than the 508 mm, six-station system.

The Express Pipeline system is designed for a maximum operating pressure of 8 400 kilopascals ("kPa") and would be provided with local automation and control at the facilities level using programmable logic controllers. Remote control and supervision of the facilities would be carried out using a supervisory control and data acquisition system ("SCADA"). The control centre for the pipeline would be located in the existing AEC Pipelines Control Centre in Sherwood Park, Alberta.

Express's SCADA system would be provided with real time application software for leak detection and batch tracking. The SCADA system would enable leak detection, verification, and pipeline shutdown within minutes of a line break that resulted in a significant leak.

In addition to its proposed mainline facilities, Express is also seeking approval to construct interconnecting facilities at the Hardisty Terminal. The interconnecting facilities are shown on the schematic representation of the Hardisty Terminal comprising Figure 2-1, and are described as follows:

- With regard to interconnection to Interprovincial Pipe Line Inc. ("IPL"):

two 914 mm O.D. pipeline headers from the IPL Terminal boundary to the suction side of the Express Terminal incoming metering and tankage.
- With regard to interconnection to Gibson Petroleum Company Limited ("Gibson"):

two 914 mm O.D. pipeline headers from the IPL interconnection header including the header connection comprised of all piping and valves to Gibson breakout tankage; all piping and valves from Gibson's tankage to the suction side of Express's booster pumps and meters (on the Gibson terminal site); and a 508 mm O.D. discharge header that traverses the northern portion of the Gibson terminal to tie into the Husky Oil Operations Ltd. ("Husky") 508 mm O.D. interconnection header downstream of the Husky booster/metering facilities on Husky property.
- With regard to interconnection to Husky:

all piping and valves from Husky tankage to the suction side of Express's booster pumps and meters on the Husky terminal site; a 508 mm O.D. discharge header that ties into the Gibson header, as previously described; and the 508 mm O.D. Husky interconnection pipeline between the Husky terminal site and the Express Terminal.

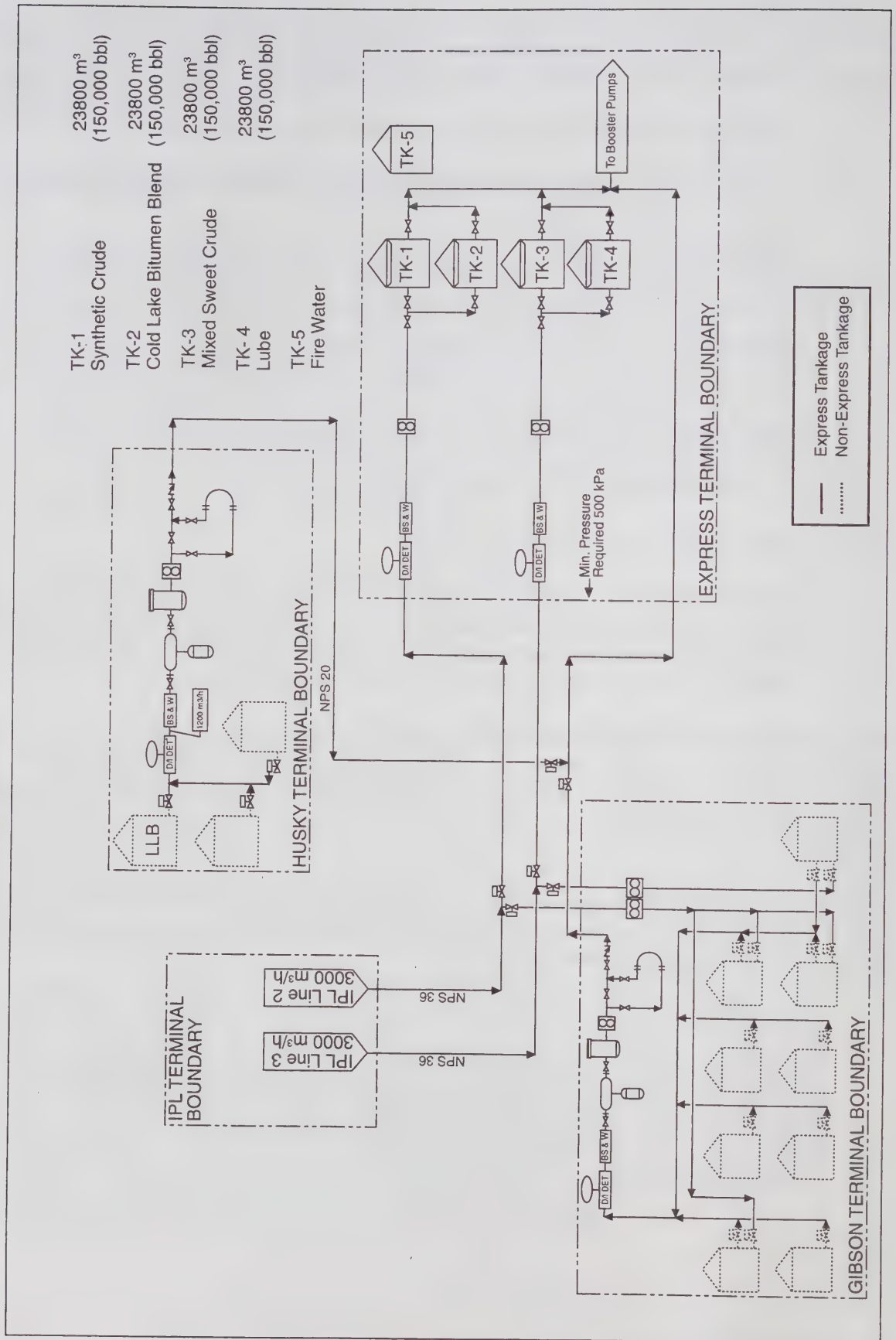
Express has indicated that the only facilities that would have to be constructed by Husky and Gibson would be the piping and valves necessary for direct connection to tankage and existing headers. The additional facilities that would be required to be constructed by IPL would include piping and valves for connection to existing headers, metering, and two new headers to connect to Express's facilities at IPL's property line.

As noted by Express, the basic code for the design, installation, and operation of the Canadian portion of the Express Pipeline system, pursuant to the Board's *Onshore Pipeline Regulations*, is the CSA Z662-94 "Oil and Gas Pipeline Systems" Standard.

Views of the Board

The Board is satisfied with the design and configuration of Express's applied-for facilities. Express will be required to seek approval pursuant to section 47 of the NEBA for leave to open the pipeline, pump stations, tankage and, interconnecting facilities prior to the commencement of service.

Figure 2-1
Schematic - Hardisty Terminal and Interconnections



2.2 Hardisty Terminal

As noted in subsection 2.1, Express is proposing to construct four 24 000 m³ tanks at Hardisty. Express also intends to utilize supplementary Gibson tankage, as well as tankage provided by Husky. By using this tankage, Express would have the ability to receive and segregate a number of crude streams, including up to eight of the twelve crude streams currently segregated on IPL's system. It is Express's intention to utilize its four tanks to segregate Synthetic, Cold Lake, Mixed Sweet, and Lube crude grades received from IPL, and to use Gibson tankage as supplemental breakout tankage for IPL receipts and to source Bow River crude. Gibson stated that it would be able to provide all services that Express is seeking in such a way as to eliminate the requirement for Express to build any facilities at Hardisty beyond those applied for.

Operation of the proposed Hardisty Terminal and the resulting effect on existing pipelines delivering crude oil into Hardisty were also addressed during the OH-1-95 proceedings. Counsel for Koch Oil Co. Ltd., Koch Pipelines Ltd., and Bow River Pipe Lines Ltd. (collectively referred to in these Reasons for Decision as "Koch") argued that Express's operations at Hardisty could create batch scheduling and injection problems for feeder pipelines delivering crude to IPL at Hardisty. Koch is concerned that the operational upsets and slippage in batch schedules that occur now with one transmission line might escalate when the added element of scheduling into the Express Pipeline is introduced. In regard to this concern, Koch proposed that the following condition be imposed on Express in the event of a project approval:

"Express shall, prior to the commencement of construction:

- a. file with the Board:
 - (i) final detailed engineering plans for all Hardisty facilities; and
 - (ii) final details of arrangements for the use of third-party supplemental tankage;
and
- b. demonstrate to the Board's satisfaction that Express and the owners of supplemental tankage at Hardisty have established operational and crude oil logistical procedures to provide for batch scheduling, batch injection and tank allocation which will not disrupt existing operations for injections from feeder pipelines into the Interprovincial Pipe Line system."

Views of the Board

The Board is of the view that Express has provided sufficient information with regard to the design of the Hardisty Terminal. In regard to part a(i) of Koch's proposed condition, the Board is satisfied with the preliminary design of the Hardisty Terminal and does not consider it necessary to have the final detailed engineering plans filed for approval. The Board notes, however, that these plans may be subject to Board audit. With respect to the balance of the proposed condition, the Board considers these to be operational issues to be worked out among the respective companies. These issues would, therefore, not be appropriate for inclusion as certificate conditions.

2.3 Batch and Crude Contamination

The Express Pipeline can be described as one which will be operated in a batch mode, whereby discrete crude streams are transported in sequence in the pipeline. This results in different grades of crude mixing at each batch interface. Interfacial mixing causes a limited amount of contamination in a stream by the time the stream is removed from the pipeline at its delivery point.

In cross-examination, Imperial and IPL challenged Express's ability to mitigate crude degradation. Imperial addressed the subject of batch interfaces, asking questions related to the determination of interface length and the possibility and mitigation of batch contamination. Express testified that it will have at its disposal various mitigation techniques to minimize crude contamination and that it would implement these measures, as appropriate, where contamination is of concern to shippers. These mitigation techniques include, among others, the use of dedicated tanks, increasing batch sizes, batch scheduling, the use of batching pigs or spheres, and the use of buffering fluids¹. Express submitted that it intends to resolve the issue of crude degradation, if and when it arises, through consultations with the parties involved regarding the appropriate action. As an aside to this issue, Express also indicated that the use of batching pigs would not impact throughput capability, as pump station design would provide for automatic pig bypass.

IPL challenged the use of batching pigs to reduce crude interface by focussing on questions regarding the level of crude interface reduction anticipated by Express when using batching pigs, as well as on the possibility of a pump station shutting down as a result of one or more pigs coming to rest in station piping due to failure of the station's automatic bypass system. With respect to the latter concern, Express's position was that the flow would not be stopped if two or even three pigs came to rest in station piping as a result of a bypass system failure.

Express was unable to provide data in regard to the anticipated reduction of crude interface with the use of batching pigs on its pipeline, but did indicate that batching pigs on the Platte Pipeline produced a two-thirds reduction. IPL refuted Express's reference by having the Applicant provide evidence that the Express and Platte pipelines have different characteristics both in terms of physical dimensions and in regard to the types of crudes they transport. These differences may have an effect on whether the crudes being shipped would be in laminar or turbulent flow, thus affecting the amount of interface between batches.

Views of the Board

The Board considers crude degradation to be an issue that is neither unique to, nor unmanageable by, Express. The Board is of the view that Express has considered the issue and it is satisfied that the Applicant will implement, if and when necessary, one or more of the aforementioned crude degradation mitigation techniques following consultation with the parties involved.

¹ A separating or batching pig is a mechanical device inserted between two "incompatible" batches of product in order to minimize mixing of the batches by creating, in essence, a seal between the two. A batching sphere can be used to perform the same task as a batching pig. The force of the product propels the pig or sphere through the pipeline. A buffering fluid is typically a grade of oil, such as synthetic crude, that is injected between two batches of product and used to minimize the interface between the other two batches of product.

2.4 U.S. Regulatory Authorizations

Construction of the Express Pipeline in the U.S. depends in part on the securing of regulatory approvals. In this connection, Express Pipeline Inc., prior to commencing U.S. construction, is required to obtain a right-of-way grant from the U.S. Department of the Interior, Bureau of Land Management ("BLM") in order to construct the pipeline through federal lands, as well as a certificate of environmental compatibility and public need from the Montana Board of Environmental Review ("BER") to construct through state and private lands in Montana. During the OH-1-95 proceedings, Express submitted that Express Pipeline Inc. had an application before the BLM and that the issuance of the grant was projected for mid to late May 1996. Express also anticipated that a certificate would be issued by the BER in late May or early June 1996. Express's evidence was that no Federal Energy Regulatory Commission ("FERC") approval is required for construction of the pipeline.

The issuance of U.S. approvals was addressed by IPL during its final argument. IPL submitted that the evidence before the Board on the uncertainty surrounding the receipt of final, non-appealable approvals in respect of right-of-way acquisition in the U.S. warrants the insertion of a certificate condition. More particularly, IPL stated that there is evidence of governmental and producer opposition to the Express Project in the state of Wyoming and that the permitting process relating to right-of-way acquisition is subject to appeal.

Express indicated that it would object to any condition requiring the Company to provide satisfactory evidence of U.S. land acquisition issues and other necessary regulatory permits. Express testified that a cross-approval process could delay construction, and cited OH-1-93 (IPL expansion) as an example where an international oil pipeline project was not conditioned in any way on approvals in other jurisdictions.

Further to this issue, Express noted that it wanted to commence construction on the Canadian segment of the pipeline in order to utilize the most favourable construction window(s) from an environmental point of view, and therefore meet the proposed in-service date, in circumstances where it has a high level of comfort regarding the final outcome of the requisite U.S. approvals. It was added that, from a commercial point of view, Express would not want to incur significant expenditures in Canada if the outcome of the U.S.-based proceedings were in significant doubt.

Views of the Board

The Board notes that Express will be at financial risk for any expenditures made prior to the receipt of regulatory approvals, and is of the view that economic discipline will dictate that large-scale construction activity not take place as long as the receipt of outstanding U.S. approvals remains in doubt. As such, the Board does not consider a condition respecting U.S. regulatory authorizations to be necessary.

Chapter 3

Public Consultation, Land, Environmental, and Socio-Economic Matters

3.1 Joint Panel Review

As noted in section 1.2, a separate Joint Panel Report was released in May 1996 addressing the Panel's examination of the environmental effects likely to result from the proposed Express Pipeline Project. That report details the Panel review process and sets out the Panel's findings, conclusions, and recommendations.

Section 3.2 provides a summary of the assessment process and a summary of the Panel's findings. Section 3.3 addresses the Board's consideration of socio-economic matters, some of which were outside the scope of the CEAA and only within the Panel's mandate under the NEBA. Section 3.4 provides the Board's conclusion regarding the environmental aspects of the Project.

3.2 Joint Panel Report - Summary

3.2.1 Summary of Assessment Process

Express submitted an environmental assessment and mitigation plan in conjunction with its application. In general, the assessment provided information on land use, soils, vegetation, fisheries, wildlife, archaeological, palaeontological, and heritage resources, and Environmentally Significant Areas.

The environmental effects of the Project were considered concurrently under two separate mandates by way of the Joint Panel Review process: (i) an examination of the environmental effects of the Project pursuant to the Board's mandate under Part III of the NEBA; and (ii) an environmental assessment pursuant to the CEAA.

The factors to be considered in the environmental assessment of the Project were set out in the Agreement and include, in summary form: the description and purpose of the Project; alternative means of carrying out the Project; a description of the environment; the environmental effects of the Project including cumulative effects, and the significance of those effects; mitigation measures; the capacity of renewable resources that are likely to be significantly affected to meet the needs of the present and of the future; and comments from the public and government agencies.

The Panel considered the Applicant's public consultation process and the concerns identified. These concerns primarily dealt with routing matters, the timing of consultation, and the lack of consultation. The Panel also considered land matters in regard to the Project.

The environmental interventions received included those of Gibson, the RMEC, and a joint intervention by the Alberta Wilderness Association and the Federation of Alberta Naturalists ("AWA/FAN"). RMEC and AWA/FAN actively participated during the hearing on environmental matters, with RMEC also pursuing other matters. Specialist advice, pursuant to subsection 12(3) of

the CEAA, was requested from the Canadian Coast Guard, Environment Canada, and the Department of Fisheries and Oceans ("DFO"). Specialist advice was provided by Environment Canada and the DFO.

Based on afore-referenced information, along with responses to Board and intervenor information requests, and evidence adduced during the OH-1-95 proceeding, the Panel examined the environmental effects likely to result from the proposed construction and operation of the Express Pipeline Project. The Panel's findings are summarized in the following section.

3.2.2 Summary of the Panel's Findings

By way of a majority decision, the Panel recommended that Express should comply with the proposed August to November construction schedule, unless otherwise authorized by the Board. The Panel, having considered alternative means of carrying out the project, found the applied-for route acceptable. Minor re-routes may be identified, prior to construction, to address concerns such as those related to northern fescue. The Panel was of the view that the Project is not likely to cause significant adverse environmental effects in regard to vegetation, including effects on rare/endangered plant species. The Panel, taking into account mitigation measures, was satisfied that the potential adverse environmental effects of the open-cut crossing of the South Saskatchewan River would be insignificant. The Panel was generally satisfied with the proposed mitigation measures in regard to wildlife issues but recommended a number of additional measures. The Panel was of the view that with the implementation of the mitigation measures for wildlife and those for soils and vegetation, any habitat fragmentation associated with the proposed pipeline is not likely to result in significant adverse environmental effects on wildlife.

The Project's contribution to provincial and Canadian greenhouse gas emissions was found to be negligible. The siting, construction, and operation of associated facilities such as construction camps, terminal and station facilities, and mainline valves were acceptable, in the view of the Panel, with the application of the proposed mitigation measures and the Panel's recommendations. The Panel examined the cumulative effects and found that the proposed project is not likely to result in significant adverse cumulative environmental effects. The Panel concluded that the commitment of Express to construct facilities to stringent up-to-date standards, as well as the use of modern materials and state-of-the-art techniques, will provide the best mitigation measures for the prevention of spills. The Panel was satisfied with the Board's reporting requirements, pursuant to the *Onshore Pipeline Regulations*, as a follow-up program within the meaning of the CEAA for this application. The Panel noted that no renewable resources are likely to be significantly affected by the Project.

Having considered all of the evidence and information relevant to section 16 of the CEAA, Express's proposed mitigation measures and the Panel's conclusions, and with the incorporation of the Panel's recommendations, the Panel was of the view that the proposed Express Pipeline Project is not likely to cause significant adverse environmental effects.

A Panel Member dissented from the Panel's view that the proposed Express Pipeline Project is not likely to cause significant adverse environmental effects. This dissent was based on the view that Express had failed to provide adequate evidence in regard to effects on vegetation and wildlife, and cumulative effects, from both a legal and scientific perspective. Furthermore, Express placed so much faith in mitigation and reclamation measures that a thorough analysis of both the environmental effects

and the cumulative effects of the Project was not undertaken. Express did not carry out an environmental assessment that would have put sufficient information before this Panel to enable it to fully consider what the environmental effects of the Project would be. The dissent stated that Express failed to meet the ultimate burden of proof or burden of persuasion, nor submitted evidence to meet the evidentiary burden imposed upon it by law. The assessment provided by the Applicant in regard to vegetation, wildlife, and cumulative effects did not provide a basis for this Panel to make a decision on scientifically-defendable information nor did it allow the Panel to factor knowledge uncertainty into the decision making process. Therefore, the dissenting Panel Member considered that it would be wrong at law to recommend that the Project proceed. In the absence of the critical evidence necessary to consider the environmental effects of the pipeline and the significance of those effects as required by the CEAA, the dissenting Panel Member recommended that the Project not proceed.

3.2.3 Response of the Government of Canada

The Government of Canada accepts the conclusions and recommendations of the Joint Review Panel in regard to the construction schedule, routing, soils and agriculture, vegetation, hydrology, fisheries, wildlife, terminal and pump stations, mainline valves, construction camps and storage areas, upstream facilities, heritage and archaeological resources, cumulative environmental effects, malfunctions and accidents, and environmental inspection, monitoring and follow-up program. In addition, for the Red Deer River crossing, comments from the Department of Fisheries and Oceans respecting the slope grading and restoration plans for the valley walls should be submitted to the National Energy Board. The Government of Canada, having considered the recommendations, the overall panel view and the dissenting view, agrees that the Project is not likely to cause significant adverse environmental effects.

3.3 Socio-Economic Matters

Express stated that the methodology employed in its assessment was to describe the Project in socio-economic terms; define the regional socio-economic impact areas; describe baseline conditions; compare forecasted project impacts to the baseline conditions; and propose mitigative measures to enhance benefits to the region and to minimize negative effects.

Express defined a socio-economic study region that included communities within approximately 50 km of the Project. The population of the study region is approximately 100,000 people with cities, towns, and villages accounting for about three-quarters of the population. The economic base of the region consists of farming, oil and gas, national defence, tourism, and government. Unemployment rates are among the lowest in the province.

Express noted that the pipeline would traverse a variety of landscapes consisting of the grain farming area near Hardisty, prairie grassland, and pastures in the Special Areas "municipalities", to the irrigation districts near Medicine Hat. Express noted that lands classified as Environmentally Significant Areas may also be traversed south of Cypress Hills.

Express noted that the operation of the pipeline would be controlled from AEC Pipeline's Sherwood Park Control Centre and that operational support would be provided from the district office at Hardisty and field staff in the Redcliff area. Express noted that, during operations, approximately ten people would be directly employed for the operation and maintenance of the pipeline.

Express submitted that during construction, an average of approximately 970 people would be employed over a six month period. Express further submitted that construction of the pipeline alone is estimated to require 3,000 person-months. Construction of the four pump stations is estimated to collectively require 850 person-months and construction of tankage at Hardisty is estimated to require 400 person-months. The pipeline would be constructed in three spreads averaging 145 km in length. Each spread would be constructed over a six-month period with a peak workforce of 350 people. Up to two warehouse assembly points per spread would be used to assemble construction personnel, supplies, and equipment each day.

Express submitted that there would be no significant impact exerted on the local school system and that there are sufficient medical and hospital facilities along the pipeline route to handle any medical emergencies during pipeline construction or operation.

The positive Project effects identified by Express include: local labour force participation; accommodation of in-migrant workers; local business benefits; establishment of operating centres; increased rural tax base; and increased rural revenues. Express stated that its policy is to encourage contractors to hire local residents where practical, economical, and consistent with labour agreements in effect. Express also stated that it would make a business directory of local contractors available to all major contractors.

The negative Project effects identified by Express include: labour force participation (i.e. increase in local labour cost); accommodation of in-migrant workers; local road capability; impact on local agriculture; direct effects on local residents; social impacts on communities; and tourism impacts.

Express noted that the present shortage of local accommodation in the region suggests that a combination of local accommodation and temporary work camps would be needed to house workers. Once sites for construction camps, if needed, have been selected, Express would provide public notification of the sites by various means, including where appropriate, newspaper publications, mailouts to potentially affected landowners, meetings with local government officials, and public information sessions. Express stated that it would ensure that contractors are fully apprised of any concerns raised in regard to construction camps and local accommodation and that it would work with contractors and local agencies to resolve any issues that may arise. Express also noted that it has received an offer from the Village of Youngstown to host a construction camp.

Express stated that direct effects on residents and impact on agriculture would be addressed during easement negotiations. Express noted that many of the affected communities are familiar with oil and gas developments and that any social disruption would be short lived over the six-month construction period.

Express noted that a number of secondary highways would be used by pipeline construction equipment and workers to gain access to the pipeline route. Extra road maintenance may be required by the local rural municipalities as up to 900 vehicles per day could travel portions of these roads. Express stated that local road bans and limits would be observed and that additional traffic incurred by the Project would be addressed during meetings with the rural municipalities. Express further stated that it and its contractors intend to work with municipalities in maintaining roads during construction.

Express further stated that it would meet with contractors to review the concerns of the affected communities, the mitigation measures agreed to and the associated follow-up. Express committed to

conduct follow-up investigations to ensure mitigation measures are being followed and that any new concerns identified are responded to in an appropriate manner. -

The Council of the County of Paintearth No. 18, the Council of the County of Forty Mile No. 8, and the Special Areas Board (local municipal authority and public land manager in the Jenner, Youngstown, and Veteran areas) advised the Board of their support for the Express Pipeline Project in letters dated 29 December 1995, 2 January 1996, and 11 January 1996, respectively.

The RMEC identified potential effects on fisheries, wildlife, vegetation, air quality, noise, and cultural and palaeontological resources that could result from the Project. The RMEC provided examples of use values related to fisheries and non-use values related to Canadians' willingness to pay additional taxes to ensure conservation of wildlife and noted that prior to any decision the Applicant should be required to study and document the socio-economic costs associated with these aspects of the Express Pipeline.

The RMEC submitted that the application was deficient in that it did not address demographic effects induced by the Project. The RMEC noted that the primary demographic effect would be the influx of a significantly large temporary workforce and the social implications that it would have on small established communities. The RMEC also noted that having workers in town for three to five months is extremely disruptive to the local community and that Express, in its application, did not give proper consideration to that type of disruption.

Views of the Board

The Board notes that socio-economic effects related to fisheries, wildlife, vegetation, agriculture, ranching, air quality, noise, and archaeological, historical and palaeontological resources, as well as environmental considerations associated with the siting of construction camps, are discussed in the Joint Panel Report. The Board further notes that the impacts arising from the use of campgrounds to house workers in the project area have also been addressed in the Joint Panel Report.

The Board is of the opinion that Express's assessment of regional socio-economic impacts adequately describes the likely Project impacts. The area through which the pipeline is proposed to be built has experienced oil and gas activity. Thus, to the extent that there are economic opportunities, the local labour force and businesses should be well positioned to access the opportunities.

Project construction would occur during a period from the beginning of July for the pump stations and August for the pipeline and would continue to the end of November. The maximum population impact in the project area from construction workers would be approximately one percent during construction. Express committed to: work with contractors and affected communities; conduct follow-up investigations to ensure mitigation measures are being followed; and to ensure that any new concerns identified are responded to in an appropriate manner. Given Express's commitments, and the recommendations set out in the Joint Panel Report, the Board is satisfied that the socio-economic impacts would be insignificant.

3.4 Conclusion

The Board has considered the Joint Panel Report and the Government of Canada's response thereto, and is of the view that, taking into account the implementation of the proposed mitigation measures and those set out in the Panel's recommendations, the Project is not likely to cause significant adverse environmental effects. The recommendations, including those related to a follow-up program and those additions arising from the Government of Canada's response, are incorporated as certificate conditions (Appendix III).

Chapter 4

Traffic, Tolls, and Tariffs

4.1 Overview

Express applied for an order approving a market-based toll methodology as well as an order designating Express as a Group 2 company for purposes of NEB toll and tariff regulation.

The Company filed a draft crude petroleum tariff which included toll schedules and pro forma transportation service agreements. The proposed initial tolls for the Canadian portion of the Express Pipeline are as follows:

Table 4-1
Proposed Initial Tolls on Express Hardisty to Wild Horse
\$US Per Cubic Metre (\$US per Barrel)

Crude Type	Uncommitted	Committed		
		5 Year	10 Year	15 Year
Light	3.461 (0.550)	2.921 (0.464)	2.704 (0.430)	2.380 (0.378)
Medium	3.738 (0.594)	3.155 (0.501)	2.920 (0.464)	2.570 (0.408)
Heavy	4.153 (0.660)	3.505 (0.557)	3.245 (0.516)	2.856 (0.454)

These tolls represent a pro rata share by pipeline length of the full tolls from Hardisty, Alberta to Casper, Wyoming (which appear in Table 4-2). The tolls appearing in Table 4-1 for light crude were drawn directly from the tariff documentation, while the tolls for medium and heavy crude were calculated by the Board based on the 8 percent and 20 percent surcharges cited in the tariff. Express noted that these surcharge levels match those of IPL.

The draft tariff also provides that Express can escalate the contract tolls by up to 2 percent per year¹. As further explained in section 4.2.1, the uncommitted toll is planned to vary in response to market conditions.

As further detailed in Chapter 6, during the autumn of 1995, Express conducted an open season whereby all potential shippers were given an opportunity to submit bids for capacity. The open season resulted in shippers entering into long-term transportation service agreements for approximately 85 percent of the available capacity.

¹ The Escalator provision of the Petroleum Tolls Schedule for Contract Term Volumes states: *Express shall have the right, from time to time, as its sole discretion, but no more frequently than once in any Year, and on not less than sixty (60) Days advance written notice to Shipper, to adjust the tolls payable under the Petroleum Tolls Schedule, provided that the cumulative increase to the tolls shall not exceed two (2%) percent per year, from the Commencement Date.*

4.2 Issues

4.2.1 Market-based Toll Methodology

Express proposes to have its tolls set on a market basis rather than derived using a traditional cost-of-service approach. The Company argued that the concept of rate base and cost-of-service recovery on an annual basis is therefore not relevant to its project and, accordingly, did not provide toll information in the format contemplated by the Board's Filing Guidelines.

Express indicated that the notional cost-of-service toll for the first year of operation would have been in the \$1.70-\$1.75 (U.S.) per barrel range for transportation of light crude from Hardisty to Casper. This initial toll was considered by Express to be higher than what the market would bear and led the Company to explore alternate approaches.

In developing its proposed tolling structure, Express sought to balance a number of sometimes competing objectives, as follows:

- fairness to both tollpayers and project sponsors, in the context of a new pipeline;
- the legislative requirement to establish "just and reasonable" tolls;
- the need to develop tolls which are market responsive, reflect service enhancements offered by Express, and are competitive with alternate pipeline delivery systems;
- the need to bring an element of stability and predictability to the tolls, while at the same time being responsive to the competitive market;
- the necessity of charging rates that would yield an acceptable return to the pipeline sponsors over the economic life of the facilities given the level of risk assumed; and
- the desire to obtain a degree of firm support from third party shippers and the corresponding need for a toll incentive to promote longer term commitments.

In its evaluation of the appropriate levels at which its tolls should be set, Express examined: (i) tolls and other service factors impacting shippers transporting Canadian crude oil from Hardisty to Casper/Guernsey in PADD IV and from Hardisty to Wood River/Patoka in southern PADD II; (ii) the level of tolls required to provide an acceptable level of return to Express over the life of the Project; and (iii) the requirement for Express to obtain firm shipper support for the Project. In making its evaluation, Express was aware that, if its tolls were not competitive, prospective shippers would seek out other transportation alternatives.

Express was of the view that shippers willing to commit to term service should receive secure access to the markets served. Express also considered that longer term shipper commitments provide critical support for the financing of the pipeline and therefore justify lower tolls. In order to provide a range of options, Express chose to offer shippers term contracts of 5, 10, and 15 years with corresponding tolls of \$1.35, \$1.25 and \$1.10 U.S. per barrel for shipment of light crude from Hardisty, Alberta to Casper, Wyoming. Express offered shippers who chose not to enter into term service agreements an

apportioned month to month service with a competitive toll at the upper end of the range of competitive tolls (\$1.60 U.S. per barrel for light crude). The complete toll schedule follows:

Table 4-2
Proposed Initial Tolls on Express Hardisty to Casper
\$US Per Cubic Metre (\$US per Barrel)

Crude Type	Uncommitted	Committed		
		5 Year	10 Year	15 Year
Light	10.063 (1.60)	8.492 (1.35)	7.862 (1.25)	6.919 (1.10)
Medium	10.868 (1.73)	9.171 (1.46)	8.491 (1.35)	7.473 (1.19)
Heavy	12.076 (1.92)	10.190 (1.62)	9.434 (1.50)	8.303 (1.32)

Express argued that its proposed toll design meets the standards set out in Part IV of the NEBA of "just and reasonable tolls" and "no unjust discrimination"¹ as described below:

- all potential shippers had an equal opportunity to subscribe to each level of service and, accordingly, would be charged equally for services of the same description;
- the differentials in tolls between levels of services are rationally based; therefore, there is no unjust discrimination;
- all services are to be provided on a tariff basis;
- the process of offering term arrangements is open and transparent; and all shippers would be treated equally within each level of service.

Express stated that although the level of return initially achieved may not be commensurate with the risk assumed, on a full life-cycle basis the expected return on the Express Pipeline would be acceptable, provided that Express was allowed to charge the market-based rates over the full life-cycle of the pipeline. Express also stated that the applied-for toll design was critical to the success of the Project, as the standard cost-of-service approach would fail to compensate investors for the risks taken. Accordingly, Express proposed this market-based toll design which provided a reasonable balance between the needs of shippers and Express's investors.

As evidence of the Board's willingness in the past to be innovative with respect to tolling methodology, Express referred to the recent approval of the IPL/Canadian Association of Petroleum Producers ("CAPP") incentive tolling proposal. Express also noted that in the case of Cochin Pipe Lines Ltd. ("Cochin"), the Board accepted tolls based on a semi-depreciated rate base, in order to

¹ Section 62 of the NEBA states as follows: *All tolls shall be just and reasonable, and shall always, under substantially similar circumstances and conditions with respect to all traffic of the same description carried over the same route, be charged equally to all persons at the same rate.* Section 67 states: *A company shall not make any unjust discrimination in tolls, service or facilities against any person or locality.*

provide a tariff profile consistent with market constraints. Likewise, in the case of Interprovincial Pipe Line (NW) Ltd. ("IPL (NW)"), the Board approved a tolling methodology negotiated between the carrier and its shippers.

During cross-examination, Express confirmed that FERC approval of the tolls and tariffs for the U.S. portion of the pipeline will be required prior to the commencement of service. The Company rejected the suggestion that any approval granted by the Board be made conditional on FERC approval of the rates.

Several parties were concerned that Express's tolls and its rate of return on equity under the proposed market-based methodology would be excessive. Amoco referred to the statement by one of Express's witnesses that the 15-year contract rate would offer Express a reasonable return even if that rate applied to every barrel on the system. Amoco argued that a regulated pipeline is entitled to earn a reasonable return, and that if Express would earn a reasonable return in the case where all barrels paid the 15-year toll, then by definition, any revenue generated above that point would increase the return beyond reasonable. Amoco suggested that Express did not deserve the assurances it sought that the applied-for toll structure would not be changed by the Board over the life-cycle of the Project, since the Board is not aware of what the return to the owners will be over the life-cycle of the Project. Imperial pointed to an Express exhibit which indicated that, under a certain set of assumptions (which had been specified by Imperial), the internal rate of return would be 13.8 percent over a 20-year project life rather than the 11.0 percent figure that had been mentioned by the Company earlier in cross-examination.

The Friends of Express ("FOX")¹ argued that Express would not be free to earn excessive rates of return because the Company would continue to be subject to regulatory oversight by the Board. FOX noted that Express would have to re-appear before the Board if it expands its pipeline or if contracts are up for renewal, and would be subject to financial reporting requirements as a Group 2 company.

A number of parties were of the view that Express's tolls were not market-based and, therefore, would not be competitive in the market. These parties argued that the tolls for committed volumes were not market-based because they were simply a snapshot of what a very small portion of the market was prepared to accept, and they would not be responsive to changing market conditions, as the tolls would be fixed for long periods of time. The parties further submitted that there was no competition constraining the uncommitted toll, since there were no good alternatives to the Express Pipeline.

FOX submitted that the fact that the Express shippers have signed binding agreements is evidence that the Express tolls are highly competitive in the market. FOX stated that the shippers were not interested in the cost-of-service approach, but that they were looking for a balancing of risks with Express. FOX further submitted that, although no other pipeline alternative could provide the benefits of Express, the Express Pipeline would still have to be competitive vis-a-vis other systems in the various markets it would serve.

Imperial Oil Limited ("Imperial") argued that Express should be required to prove that it would not have market power in the markets that it intends to serve. Imperial argued that under the FERC rules,

¹ The Friends of Express is a group of petroleum producers comprised of Crestar Energy Inc., ELAN Energy Inc., Fletcher Challenge Petroleum Inc., Gulf Canada Resources Limited, Morgan Hydrocarbons Inc., Numac Energy, PanCanadian Petroleum Limited, Rigel Oil & Gas Limited, Sceptre Resources Limited, and Wascana Energy Inc.

an oil pipeline seeking to charge market-based rates in the U.S. would be allowed to do so only if it demonstrated that it lacked market power. Imperial stated that, in order to do this, a pipeline would have to prove that there are several "good" alternatives to the pipeline seeking market-based rates. Imperial argued that in order to be considered a good alternative, the alternative pipeline must be one that is available soon enough, at a price that is low enough, and has a quality high enough to allow customers to substitute the alternative service.

Imperial also argued that market-based tolls are not appropriate for the Express Pipeline because in times of excess pipeline capacity, the cost-of-service based tolls on alternate pipeline systems would increase, thereby allowing Express to increase its tolls without any corresponding increase in its costs. Furthermore, in times of pipeline capacity shortage, Express would be able to charge whatever tolls the market would bear. Imperial argued that the Board must be convinced that a market-based toll methodology would result in just and reasonable tolls in the future before it commits to this toll methodology for the life of the pipeline.

Amoco Canada Petroleum Company Ltd. ("Amoco") and Imperial had concerns regarding the lack of cost-of-service information provided by Express. Amoco referred to the statement by an Express witness that as the tolls on a cost-of-service basis would be too high in the early years of the Project, the Company decided to apply for market-based tolls. Amoco submitted that this tolling methodology had been referred to at times as a "levelized toll". This approach was used in the case of Cochin's tolls application where the return to be earned by Cochin was demonstrated to be reasonable in relation to the return that would have been earned over the life-cycle of the project under the cost-of-service tolling methodology.

Amoco submitted that apart from a demonstration that the Board is usually flexible in unusual situations, the decisions by the Board with respect to Cochin's and IPL (NW)'s toll applications did not provide a precedent for the Express toll application. In this case, Express had not provided the Board with any cost-of-service revenue forecasts to compare with the revenue that it would receive pursuant to the applied-for toll design.

FOX and the Alberta Department of Energy ("ADOE") were of the view that Express should not be required to file cost-of-service information. These parties argued that since Express did not apply for cost-of-service tolls it was not obligated to file this information. They further argued that if other intervenors wanted to compare Express against a number of benchmarks, they were free to do so by filing evidence and asking information requests.

Amoco also requested that the Board consider whether there would be discrimination between the uncommitted shippers and the contract shippers on Express in terms of access to the Platte Pipeline Company ("Platte") system. Amoco stated that the contract shippers would benefit from a joint Express/Platte tariff that would result in reduced costs of transportation to Wood River, but that Express had not proposed a similar joint tariff for the uncommitted shippers.

IPL argued that the Board should consider whether the right to complain is a meaningful right, or whether it is a right at all, in the light of contractual commitments. IPL further argued that Express was seeking to have the Board approve contracts and toll methodology for the term of the contracts. IPL was of the view that the Board would fetter its jurisdiction by approving the fixed-price term contracts for 5, 10, or 15 years.

Views of the Board

The Board notes that certain parties requested that the Board consider whether there would be discrimination between the uncommitted shippers and the contract shippers on the Express Pipeline in terms of access to the Platte system and the tariff on the Platte system. As the Platte system and the facilities proposed to be constructed by Express Pipeline Inc. are located entirely in the U.S., the tolls charged to shippers on those systems are a matter outside the Board's jurisdiction.

In regard to the matter of discrimination under the NEBA, the Board is of the view that lower tolls, renewal rights, and preferred access for contract shippers are justified by the support those shippers provide for the financing of the pipeline and their sharing with Express of the risks associated with the pipeline.

The Board is of the view that contract shippers will not be prevented from filing complaints with the Board as a result of their contractual commitments. The Board continues to be responsible to ensure that tolls are just and reasonable and will consider any complaints from both contract and uncommitted shippers. The Board further notes that it may examine a company's tolls on its own initiative.

The Board notes that the shippers who signed term contracts will be assuming some of the risks of the Project in return for lower tolls and unapportioned access. In the Board's view, the results of Express's open season, in which 85 percent of the available capacity was contracted for by the shippers, is evidence that its tolls are market-based and highly competitive in the market at the present time. Furthermore, in the future, the level of the tolls charged to both uncommitted shippers and contract shippers will be constrained by the market, as transportation alternatives are available to prospective shippers at Hardisty. The Board is of the view that the Applicant's proposed tolling methodology is appropriate and that the proposed initial tolls are just and reasonable. The Board is also of the view that a cost-of-service benchmark is not necessary to evaluate whether the tolls are just and reasonable.

Express requested that the approved tolling methodology not be changed over the life-cycle of the Project, and that the Board acknowledge the long-term pipeline transportation service agreements entered into between Express and its shippers as they relate to the commercial rights and obligations of these parties regarding the tolls and tariffs applicable to the transportation services to be rendered by Express. The Board is not able to grant these requests, as it does not have the authority to bind future Board panels deciding issues under Part IV of the NEBA.

4.2.2 Form of Regulation

As previously noted, Express applied to be designated as a Group 2 company for purposes of NEB toll and tariff regulation. Given that the tolls for transportation service regarding committed volumes are subject to commercial arrangements between Express and its shippers, Express considered the Group 2 method of regulation to be the most appropriate. Additionally, given that the Board understands the manner in which the initial level of the uncommitted toll was derived, and also has a full understanding of the way in which Express proposed to change this toll from time to time, Express

considers that the need for active regulatory monitoring would be minimal. Express argued that there was no reason to expose the Company to a higher level of regulatory burden. -

Express stated that it was aware that certain companies are categorized as Group 1 companies, yet their tolls are regulated on a complaint basis. Express argued that while this alternative would accommodate a number of Express's objectives, it would impose an unwarranted administrative and economic burden on Express. The Company pointed out that given the agreed-upon tolls that it will charge, there would be little information that the Board did not already know. Additionally, cost-of-service type information on an ongoing basis would be neither available nor relevant.

Express stated that it did not factor Group 1 regulation into its costs when calculating its tolls; therefore, any cost impacts associated with the form of toll regulation would have to be borne by the shareholders of the owner companies. In its calculation of its return, and other costs, Express assumed that it would be regulated as a Group 2 company and therefore would not contribute as significantly to the cost recovery process as it would under a Group 1 designation.

The ADOE submitted that Group 2 regulation would be appropriate under the circumstances presented by Express. It argued that a significant portion of Express's throughput is contracted by shippers who have made an assessment as to the worth of the Express proposal, including the markets it accesses and the tolls it will charge to access those markets. The shippers making those assessments, and ultimately signing transportation agreements, have indicated that they are willing to assume the risk of a term contract with Express. The ADOE concluded that under the Group 2 designation, the Board would retain a reasonable level of oversight.

Amoco was opposed to a complaints-only level of scrutiny for Express, whether as a Group 1 or a Group 2 pipeline, or as a modified Group 1 pipeline, such as Cochin. Amoco was of the view that the shipper contracts would prevent the holders of 85 percent of the capacity on Express from complaining to the Board. Amoco argued that such a complaint would be a breach of the shipper's contract with Express. The uncommitted shipper may be able to complain about its toll; but having regard to the assurances that Express is seeking for its toll design, the Board would be in a very difficult position if it were to receive such a complaint. Amoco submitted that the Board should increase the level of surveillance of Express, not decrease it. It also argued that Express should be responsible for its fair share of the Board's expenses.

Imperial was of the view that Express should be granted Group 2 status only after it has demonstrated to the Board and others that it lacks market power in the markets that it will serve. Once Express has demonstrated that it lacks market power, it should be required to file on an annual basis its uncommitted toll, together with full information with respect to the tolls, tariffs, and capacity of alternate pipeline systems that serve the same markets. Imperial considered that this information should be required in order to provide shippers with some benchmark against which they could assess whether the tolls set by Express are just and reasonable. In addition, such information would provide the necessary background upon which a shipper could base its complaint, and would provide an ongoing check to ensure that Express did not subsequently acquire market power.

Without such information, Imperial was concerned that the burden of proof under the toll methodology proposed by Express would be changed from the proponent having to justify its tolls to the shippers having to prove that the tolls are unjust or unreasonable. Imperial was of the view that if Express was regulated on a Group 2 basis, the Board should set out strict information filing requirements in order

to ensure that Express would provide the information necessary to enable shippers to make informed decisions regarding the appropriateness of Express's tolls.

Views of the Board

Pursuant to the Board's *Memorandum of Guidance on the Regulation of Group 2 Companies* that was issued on 6 December 1995 ("Memorandum of Guidance"), Group 2 companies are subject to a lesser degree of regulation than Group 1 companies. The financial regulation of Group 2 companies is carried out on a complaint basis, with a consequential reduction in financial reporting requirements.

It is the Board's view that complaint-basis regulation as a Group 2 company is appropriate for Express. In this connection, Express will be required to include in its tariff the explanatory note set out in Schedule B of the Memorandum of Guidance indicating that persons who cannot resolve traffic, toll, and tariff issues with the Company may file a complaint with the Board¹. As a matter of clarification, both contract shippers and uncommitted shippers on Express would be free to complain if they are of the opinion that the tolls set by Express are no longer just and reasonable. Subsection 60(1) of the NEBA provides that "a company shall not charge any tolls except tolls that are (a) specified in a tariff that has been filed with the Board and is in effect; or (b) approved by an order of the Board". As it is the Board's normal practice to deal with the tolls and tariffs of Group 2 companies under paragraph 60(1)(a) of the NEBA, the Board does not consider it necessary to issue an order approving Express's proposed tolls and tariffs. The Company will, however, be required to file its final tolls and tariffs with the Board prior to the commencement of operation.

The Board notes that there is no direct link between the classification of a company for regulatory purposes and the classification of a company for cost recovery purposes. The designation of Express as a Group 2 company does not therefore translate into a particular designation under the Board's *Cost Recovery Regulations*. The share of the Board's cost recovery charge that Express will be required to pay under the *Cost Recovery Regulations* will be decided at a later date.

4.2.3 Common Carrier Obligations

Subsection 71(1) of the NEBA states that "Subject to such exemptions, conditions or regulations as the Board may prescribe, a company operating a pipeline for the transmission of oil shall, according to its powers, without delay and with due care and diligence, receive, transport and deliver all oil offered for transmission by means of its pipeline". Further, section 67 of the NEBA requires that a company "not make any unjust discrimination in tolls, service or facilities against any person or locality". Together,

¹ The full text of the explanatory note set out in Schedule B of the Memorandum of Guidance for inclusion in the tariffs of Group 2 companies is as follows: *The tolls of the Company are regulated by the National Energy Board on a complaint basis. The Company is required to make copies of tariffs and supporting financial information readily available to interested persons. Persons who cannot resolve traffic, toll and tariff issues with the Company may file a complaint with the Board. In the absence of a complaint, the Board does not normally undertake a detailed examination of the Company's tolls.*

these provisions require that an oil pipeline offer service under the same terms and conditions to any party wishing to ship oil on its line.

Express submitted that there is no conflict between long-term shippers holding secure access to its system and its obligations under subsection 71(1) of the NEBA. Express referenced the Board's statement in its GHW-5-90 and RH-3-90 Reasons for Decision concerning toll design for certain natural gas liquids facilities on the IPL system that "so long as a pipeline gives all parties the same opportunity, at the same time, to participate in a project or to avail themselves of a particular service, then that pipeline's common carrier status is maintained"¹. Express submitted that this reasoning would apply in this situation, where all parties were given the opportunity to sign up for long-term secure access during the open-season period.

Express further referred to the Board's decision in the GHW-5-90 and RH-3-90 Reasons for Decision that the granting of unapportioned access to parties executing a Facilities Support Agreement would not be unduly discriminatory. Given the specific circumstances of its own application, Express argued that a similar finding by the Board would be appropriate.

Finally, Express cited the Board's GH-4-93 Reasons for Decision concerning the Intercoastal project as a case where the project sponsors had entered into an alternate transportation agreement with the sole shipper contracting for capacity on the pipeline. The Board found this arrangement to be acceptable and not to constitute undue discrimination². Express argued that its open-season process could be considered analogous to Intercoastal's transportation agreement. No party had been excluded from participation in the process and the same terms and conditions were offered to all parties at the same time.

FOX agreed with Express's view that the conditions required by subsection 71(1) of the NEBA have been met. FOX referred to Express's testimony that it would not be undue or unreasonable for a pipeline to offer preferential treatment to shippers who had provided financial commitments to a new pipeline project.

The ADOE submitted that there would be no unjust discrimination against certain shippers because of the delineation of uncommitted and 5, 10, and 15 year tolls. The ADOE noted that all parties were provided an equal opportunity to avail themselves of the unique opportunity offered by Express to shippers who were willing to commit.

Amoco requested that the Board give consideration to the fact that uncommitted shippers were not provided with the same opportunity as contracted shippers to access a through-tariff on the Express and Platte pipelines from Hardisty to Wood River.

IPL argued that none of the cases cited by Express as setting a precedent for allowing long-term fixed-price contract holders to have unapportioned access to the pipeline were correct. IPL submitted that there has been no Board precedent for offering fixed-price long-term unapportioned access and that

¹ Reference Chapter 9 "Access to the Proposed Facilities" of GHW-5-90 and RH-3-90 Reasons for Decision dated February 1991.

² Reference section 7.3.4 "Terms of Access" of GH-4-93 Reasons for Decision dated April 1994.

allowing access under these conditions may result in initial shippers being treated preferentially in the future.

Views of the Board

The Board has considered the transportation service agreements, the pro forma tariff, and the open-season process, and finds that Express has not contravened its common carrier obligations under subsection 71(1) of the NEBA. Further, the Board finds that the granting of secure service to shippers supporting the Project through long-term transportation service agreements would not constitute unjust discrimination under section 67 of the NEBA. All parties were given an equal opportunity to contract for long-term secure access to the system. Potential shippers who chose not to enter into a long-term transportation service agreement did so with the full understanding that they would not receive the same package of services extended to contract shippers. At the same time, the Board notes that its statutory powers cannot be restrained by contracts and that it retains its jurisdiction to protect the public interest in future proceedings.

4.2.4 Impact of Express on IPL Apportionment

Amoco, Imperial, Koch, and IPL argued that the construction of the Express Pipeline and its proposed operation as a contract carrier for term volumes would allow Express shippers to potentially exacerbate or manipulate the level of apportionment on the IPL system.

The scenario that was described by these parties was as follows. On the presumption that the Chicago market will continue to provide the highest netback for western Canadian crude oil producers, most WCSB volumes (including those owned or controlled by Express shippers) will be nominated on IPL to Chicago, thereby creating apportionment on IPL. To the extent that Express shippers are successful with their IPL nominations, they will receive the higher netbacks in the Chicago market. To the extent that they are unsuccessful with their IPL nominations, they can then move their volumes on Express. However, in addition to their own volumes, they would now have access to the volumes of others who are unable to ship on IPL due to the apportionment caused, in part, by the Express shippers. Express shippers could then offer to purchase the third-party crude at a discount up to the maximum of the difference between the uncommitted toll which the third party would otherwise have to pay on Express and the contract rate for the Express shipper.

Amoco recommended that, if Express is approved, conditions should be included to prevent this from occurring. Imperial suggested that the Board limit committed shippers on Express to renomination on Express after IPL apportionment to only those volumes which IPL rejects through the apportionment process.

Express, on the other hand, suggested during cross-examination that its project may reduce apportionment on IPL by providing Canadian crude with additional markets. In reply argument, Express further submitted that the concern was hypothetical and that any apportionment problems that arise following the construction of the Express Pipeline could be addressed at that time.

Views of the Board

The Board is of the view that the impact of the Express Pipeline on IPL apportionment cannot be determined at this time, and considers that the issue can be addressed at a future date if and when it arises.

Chapter 5

Canadian Crude Oil Supply

In support of its application, Express adopted estimates of remaining established reserves of Canadian crude oil and equivalent (as of 31 December 1994) from the Statistics Canada "Energy Statistics Handbook" dated April 1995. Express also submitted that, based on an examination of the recently completed forecasts of overall availability of the various types of crude oil in the WCSB, it had chosen to place primary reliance on the Board's "Canadian Energy Supply and Demand 1993-2010" report dated 1994 ("NEB Supply/Demand Report"¹) to project future western Canadian production of crude oil and equivalent. Express adopted as its base case the "Current Technology" supply case from this report for the 1995 to 2005 period and, as a sensitivity case, the "High Technology" supply case from this report.

On the basis of the NEB Supply/Demand Report, for its base case Express forecast that total production of crude oil and equivalent from western Canada would average 330 900 m³/d (2,081,000 b/d) in 1995, would increase to an average peak of 339 000 m³/d (2,132,000 b/d) in 1997, and would then decline to an average of 284 000 m³/d (1,786,000 b/d) in 2005. For its sensitivity case, Express forecast that total production of crude oil and equivalent from western Canada would average 335 100 m³/d (2,108,000 b/d) in 1995, would increase to an average peak of 355 400 m³/d (2,235,000 b/d) in 1998, and would then decline to an average of 330 300 m³/d (2,077,000 b/d) in 2005.

Express noted that while it had used the NEB Supply/Demand Report as the basis for its application, this did not comprise the totality of the supply evidence put forth by the Company. Express argued that the evidence suggests that the crude oil resource base of western Canada is very large, with the magnitude of this discovered resource being in the order of 400 times the current annual production. Express further noted that there had been a tendency in the past to underestimate future supply to the detriment of the Canadian producing industry in general and the Canadian economy as well. Express noted that it had retained experienced and knowledgeable experts, namely Purvin & Gertz, Inc. ("Purvin & Gertz"), to assess the NEB Current Technology projection and that its experts had concluded that the NEB projection was a reasonable, although conservative, forecast of future Canadian crude oil production.

Express further argued that advances in technology, such as horizontal drilling and three-dimensional seismic, and the enormous potential offered by oil sands and heavy crude oil production, would lead one to conclude that the NEB's High Technology case may, in fact, be a more realistic projection of western Canadian production, provided that limited pipeline capacity to attractive markets did not constrain production. Express referred to the recent comprehensive report prepared by the National

¹ The Board's "Canadian Energy Supply and Demand 1993-2010" report was issued in three volumes. The "Trends and Issues" report was released in July 1994, while the "Technical Report" and the "Appendix to Annual Report" followed in December 1994. For the purpose of these Reasons for Decision, these three documents are referred to collectively as the "NEB Supply/Demand Report".

Task Force on Oil Sands Strategies¹ to corroborate its view with regard to the oil sands' potential. The Company also noted that, over the last five years, Canadian crude oil production has increased by almost 63 600 m³/d (400,000 b/d) and that a forecast of crude oil supply by CAPP for the years 1997 and 1998 (and entered as evidence by IPL) provided a more optimistic picture of future supply than the Express forecast (see Table 5-1). Finally, Express noted that 190 800 m³/d (1,200,000 b/d) of crude oil would pass by the inlet to its pipeline system at Hardisty, and that this volume combined with contractual commitments made by its shippers would ensure availability of crude oil to the Express Pipeline.

Table 5-1
Express and CAPP Forecasts
Western Canadian Crude Oil Supply
(10³m³/d)

	1995		1997		1998	
	<u>Express</u>	<u>CAPP</u>	<u>Express</u>	<u>CAPP</u>	<u>Express</u>	<u>CAPP</u>
Light and Medium	150.8	147.6	143.4	147.9	137.8	147.9
Synthetic	43.8	44.5	45.2	44.5	45.2	46.1
Pentanes plus	25.5	22.6	27.1	23.1	27.6	23.1
Heavy and bitumen	<u>110.8</u>	<u>101.6</u>	<u>123.3</u>	<u>122.0</u>	<u>125.3</u>	<u>126.4</u>
Total	330.9	316.3	339.0	337.5	335.9	343.5

Express requested that the Board dismiss the supply arguments put forth by the RMEC, the only party raising concerns with respect to the adequacy of supply, because the RMEC acknowledged under cross-examination that it had no expertise in the area of crude oil supply and demand.

During the hearing, the RMEC expressed concerns that Express was unable to respond to detailed questions about the underlying assumptions in the NEB Supply/Demand Report and, consequently, it could not test the rigour and the quality of the information submitted by Express. The RMEC submitted that this was contrary to the rules of evidence and it introduced a motion for the Board to strike from the application any reference to the NEB Supply/Demand Report. The only other party to speak to the motion was Express, who opposed it. The Board denied the request, ruling that since the NEB Supply/Demand Report was a public document, it may be used as part of the evidentiary record in a regulatory proceeding, to the extent that a party wishes to rely on the material, just as a party could rely on any other public document. The Board noted that the choice of evidence to be introduced rests with the Applicant and that, in this case, the Applicant had chosen to rely, in part, on the Board's report. The Board further noted that it would be for the Board to eventually decide

¹ In the spring of 1995, the National Task Force on Oil Sands Strategies of the Alberta Chamber of Resources issued a comprehensive report entitled "The Oil Sands: A New Energy Vision for Canada" and a series of companion appendix documents.

whether the Applicant's reliance on the NEB Supply/Demand Report was reasonable and appropriate in the circumstances (refer to Appendix II for the full text of the ruling). -

During the hearing, the RMEC also requested that the Board strike a panel of its technical staff to be questioned on the preparation and authoring of Chapter 7 "Crude Oil and Equivalent" of the NEB Supply/Demand Report. Parties speaking to the motion acknowledged that a similar request by the RMEC was refused by the Board in the GH-3-94 Gas Export Hearing, held in September and October 1994. The RMEC argued that a subtle but significant difference existed to distinguish the GH-3-94 application from the current one, in that the applicants had other material in the GH-3-94 application, in addition to the technical reports produced by the Board, with which to make their case. In the current application, the RMEC argued, the Applicant was relying on the NEB Supply/Demand Report. Again, no intervenor other than the RMEC supported the motion, which was opposed by Express. The Board denied the request because it found that it was in agreement with the reasoning of the Board set out in the ruling for the GH-3-94 hearing and it found that the difference suggested by the RMEC was irrelevant to its decision. The Board noted that the onus is on the Applicant to defend its evidence under cross-examination (refer to Appendix II for the full text of the ruling).

The RMEC argued that the Applicant had truncated its projection of crude oil supply at the year 2005 because this was the point when the supply curve starts dropping dramatically and, therefore, the projection would not have been supportive of the Applicant's case beyond 2005. In its evidence, the RMEC extrapolated to the year 2030 the crude oil supply projections from the Current Technology case of the NEB Supply/Demand Report, which Express had used as its base case, and a recent forecast by IPL submitted to the Board in the OHW-2-95 proceedings. The RMEC argued that these extrapolations demonstrate that the productive capacity of crude oil supply from the WCSB is in a permanent and irreversible decline. As a result, even without the Express Project, the excess pipeline capacity for oil exports would increase from a current level of 50 000 m³/d (314,000 b/d) to 150 000 m³/d (943,000 b/d) in 2010, and would be in excess of 200 000 m³/d (1,258,000 b/d) by the year 2030. When incremental expansions of existing pipelines are considered, the latter estimate could rise as high as 250 000 m³/d (1,572,000 b/d). The RMEC further argued that its extrapolations were the best information available, and that the Board should not dismiss this information simply because the RMEC witnesses did not have expert qualifications as reservoir geologists or reservoir engineers.

With regard to Express's submission regarding the magnitude of the western Canadian crude oil resource base, the RMEC argued that the amount of this resource base that is actually recoverable would be dependent upon economics and technology. It urged the Board to use this measure of the future supply with caution.

No other intervenors challenged Express's evidence on crude oil supply.

Express's position regarding crude oil supply was supported by FOX and the ADOE.

Views of the Board

The Board recognizes the uncertainties associated with forecasts of the crude oil supply available for shipment on the proposed Express Pipeline. However, it accepts as reasonable the domestic crude oil supply projections to the year 2005 submitted by Express for its base and sensitivity cases. For the period beyond 2005, the Board accepts the argument of Express that the magnitude of the western Canadian crude oil resource base, and the likelihood of continued technological progress in the recovery of this resource, provide assurance that adequate supplies of western Canadian crude oil would be available to the proposed pipeline.

Chapter 6

Markets and Competitiveness

6.1 Markets for Western Canadian Crude Oil

The largest markets for western Canadian crude oil are western Canada, Ontario, and the U.S. midwest (PADD II). Smaller volumes of western Canadian crude oil are shipped to refineries in PADD IV, to refineries in Puget Sound, Washington (PADD V), and to one refinery in PADD I.

Express argued that western Canadian crude oil faces threats in traditional markets and that, in fact, these markets have eroded over time. The Montreal market has essentially been lost to imported crude oil, the Vancouver market has shrunk, and the Ontario market is threatened by the potential reversal of IPL's Line 9 (Sarnia to Montreal pipeline). All of these events make it critical for western Canadian crude oil to gain enhanced access to new markets.

Figure 6-1 indicates the PADDs which are used to define the various U.S. crude oil market areas, and the major crude oil pipelines relevant to this hearing. Figure 6-2 illustrates the major crude oil pipelines in western Canada and in PADD IV.

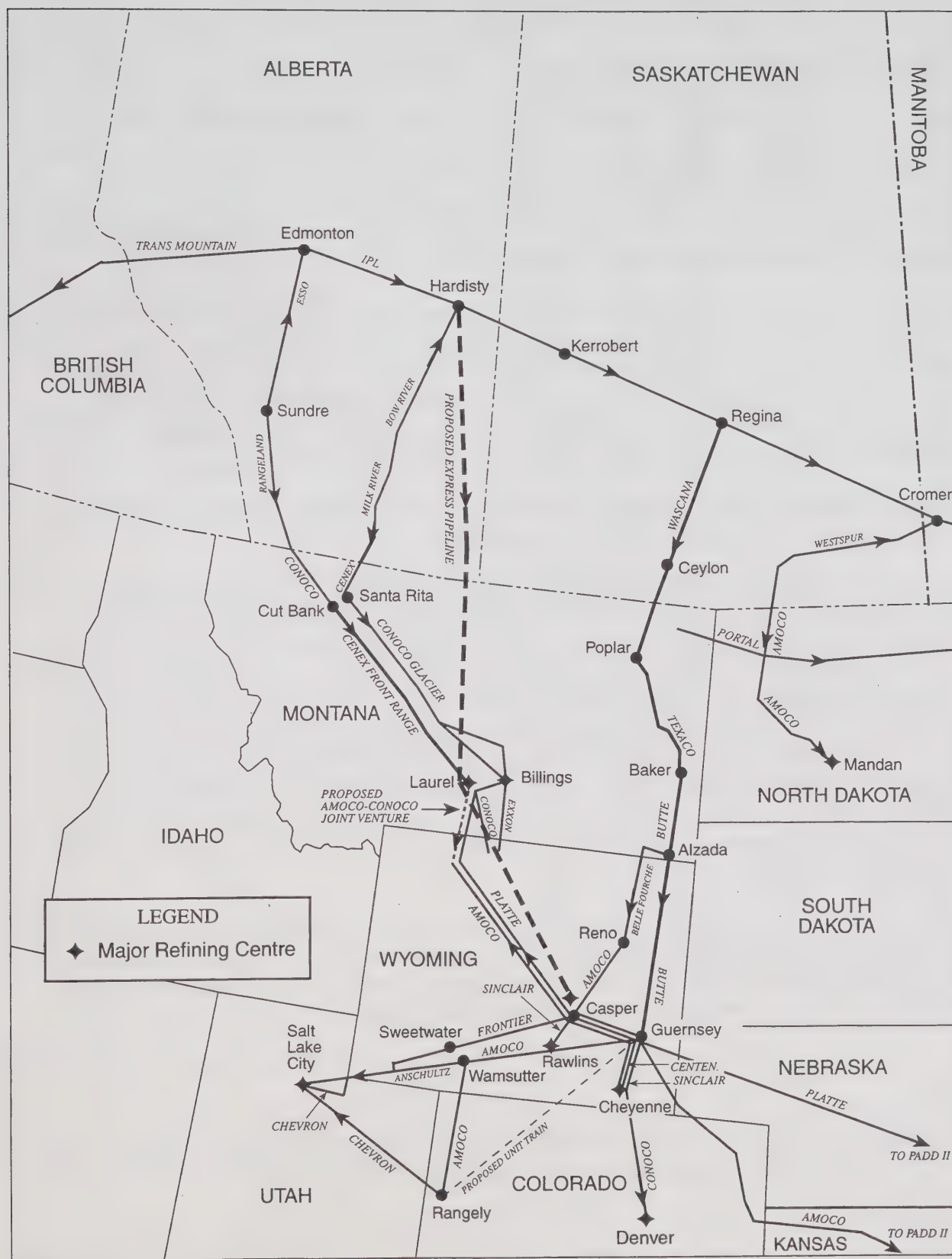
Express submitted that its pipeline would expand access to PADD IV and southern PADD II markets in the United States. Express identified a growing need for western Canadian crude oil in PADD IV because crude oil production is declining in this area and, presently, western Canadian crude oil has limited access to this market. Access to the Wood River/Patoka area, south of the traditional northern PADD II market, would also be enhanced by the Express Pipeline system. The southern PADD II market began receiving western Canadian crude oil in 1994 via the reversed Mobil pipeline which is connected to IPL/Lakehead at Lockport, Illinois. However, the Mid-Continent area (Oklahoma and Kansas) in southern PADD II currently has no practical access to western Canadian crude oil. Express stated that it would achieve this goal by providing a link to the Platte Pipeline which extends from Casper, Wyoming to Wood River, Illinois.

At Casper, the Express Pipeline could also connect to the Frontier Pipeline for deliveries of western Canadian crude oil to refineries located in Salt Lake City, Utah. On 15 January 1996, Express announced that a U.S. subsidiary of AEC and TCPL had entered into an agreement to acquire the Platte Pipeline from its five current owners. The Express Project sponsors purchased the Platte system in order to ensure the availability of transportation service. Total take-away capacity from Casper, according to Express, is approximately 50 800 m³/d (320,000 b/d) and in the future could reach 60 300 m³/d (380,000 b/d).

Figure 6-1
Crude Oil Pipelines Relevant to OH-1-95 Proceeding



Express Pipeline Project and Relevant Crude Oil Pipelines in PADD IV



Express argued that PADD IV is a landlocked market, with Canada as its only viable source of crude oil supplies. Under cross-examination, this assessment was corroborated by the Energy Analysts International Inc. ("EAI") witness panel sponsored by Wascana Pipe Line Ltd., Texaco Pipeline Inc., and Butte Pipe Line Company ("Wascana/Texaco/Butte"). Express submitted evidence that in PADD IV there are 15 refineries ranging in size from 1 100 m³/d (6,900 b/d) to 8 600 m³/d (54,000 b/d). Total crude oil capacity is 79 900 m³/d (503,000 b/d). PADD IV has two distinct markets: Billings, Montana and southern PADD IV. The three refineries located in Billings have asphalt plants and cokers which allow them to process heavy crude oil, and two-thirds of their current supply is sourced from Canada. At this time, Express does not expect to deliver crude oil to refineries located in Billings. In southern PADD IV (particularly in Utah), refineries use primarily light sweet crude oil, the local production of which is declining. Limited volumes of light sour crude oil are used by three refineries in this region for the purposes of asphalt production.

In southern PADD II, the Wood River area has ten refineries with a total capacity of 180 000 m³/d (1,130,000 b/d) and, in 1994, crude runs were 162 000 m³/d (1,020,000 b/d). These refineries imported 54 400 m³/d (342,000 b/d) in 1994, of which 8 900 m³/d (56,000 b/d) was heavy crude oil. According to Express, this area is a potential market for western Canadian sweet, sour, and heavy crude oil. In the Mid-Continent area of PADD II, there are 11 refineries with a capacity of 109 600 m³/d (689,900 b/d), and the crude slate is primarily light sweet crude oil.

In summary, southern PADD II markets (Wood River and Mid-Continent) available to Express have 21 refineries with a total capacity of 289 600 m³/d (1,821,500 b/d).

In support of its application, Express filed a report prepared by Purvin & Gertz entitled "Crude Oil Market Outlook Regarding Express Pipeline". The report concluded that the Express Pipeline would allow more crude oil production in western Canada; it would supply western Canadian light crude oil to PADD IV which is becoming short of this type of crude oil as local production declines; it would ship western Canadian crude oil to the southern part of PADD II which will require more imported crude oil; and that it would provide competitive prices for Canadian light and heavy crude oils. The report also noted that PADD IV refiners may pay a premium for light Canadian crude oil because of shortages in this market, but that a lack of pipeline capacity in the absence of the Express Pipeline would limit access by Canadian producers. Purvin & Gertz stated that the availability of appropriate types of crude oil at competitive costs is a very important issue which could affect the economic life of refineries in PADD IV.

Express provided a forecast of the supply and disposition of western Canadian crude oil employing the Board's Current and High Technology cases from the Supply/Demand Report regarding production and its disposition, including the total forecast throughput for Express. These forecasts have been reproduced as Tables 6-1 and 6-2 for the years 1994 to 2005 inclusive.

Table 6-1
Canadian Crude Oil Supply and Disposition
Based on NEB Current Technology Case¹
(10³m³/d)

	<u>1994</u>	<u>1997</u>	<u>2000</u>	<u>2005</u>
Productive Capacity	309.0	339.1	327.7	238.9
Less Western Canada Demand	<u>78.7</u>	<u>75.2</u>	<u>74.7</u>	<u>76.1</u>
Available	230.3	263.9	253.0	207.8
Disposition				
Ontario	65.9	69.9	71.0	39.1
PADDS I & II ²	119.5	135.9	123.3	97.1
West Coast	12.1	15.6	6.0	6.0
PADD IV ²	<u>20.3</u>	<u>16.8</u>	<u>21.0</u>	<u>24.0</u>
Sub-Total	217.9	238.2	221.4	166.2
Express	0.0	24.2	31.8	43.5
Surplus/(Deficit)	12.5	1.6	(0.1)	(2.0)

Table 6-2
Canadian Crude Oil Supply and Disposition
Based on NEB High Technology Case¹
(10³m³/d)

	<u>1994</u>	<u>1997</u>	<u>2000</u>	<u>2005</u>
Productive Capacity	309.8	352.9	352.8	331.9
Less Western Canada Demand	<u>78.7</u>	<u>75.2</u>	<u>74.7</u>	<u>76.1</u>
Available	219.1	277.6	278.1	255.8
Disposition				
Ontario	65.9	69.9	71.0	42.1
PADDS I & II ²	119.5	135.9	125.9	125.4
West Coast	12.1	15.6	9.7	6.0
PADD IV ²	<u>20.3</u>	<u>16.8</u>	<u>20.8</u>	<u>24.2</u>
Sub-Total	217.9	238.2	227.4	197.7
Express	0.0	27.0	43.7	43.7
Surplus/(Deficit)	13.3	12.5	7.0	14.4

In addition, Express submitted a throughput forecast for PADDs IV and II. It is based on increasing deliveries to PADD IV plus 11 100 m³/d (70,000 b/d) of crude oil for shipment to Wood River,

¹ Source: NEB Supply/Demand Report.

² Using existing pipelines.

Illinois in southern PADD II. PADD IV deliveries would consist primarily of light sweet crude oil while Wood River shipments would predominantly be heavy crude oil. Express's throughput forecast is reproduced as Table 6-3.

Table 6-3
Express Pipeline Throughput Forecast
(10³m³/d)

	<u>1997</u>	<u>2000</u>	<u>2005</u>
PADD IV			
Light	7.8	14.6	25.6
Heavy	<u>5.2</u>	<u>6.0</u>	<u>6.8</u>
	13.0	20.6	32.4
PADD II			
Light	3.2	3.2	3.2
Heavy	<u>7.9</u>	<u>7.9</u>	<u>7.9</u>
	11.1	11.1	11.1
Total			
Light	11.0	17.8	38.8
Heavy	<u>13.1</u>	<u>13.9</u>	<u>14.7</u>
	24.1	31.7	43.5

In section 6.4 of these Reasons for Decision, a detailed discussion is provided regarding throughput commitments on Express. Express submitted that it has received throughput commitments totalling 23 200 m³/d (146,000 b/d). Express stated that the difference between commitments and its forecast throughputs is expected to be made up by spot shipments.

In support of Express, FOX argued that PADD IV refineries require light sweet and synthetic crude oil available from western Canada. FOX also stated that PADD II provides Express with access to another one million barrels per day of refining capacity. The ADOE stated in support of Express that PADD IV is a growing market due to increasing product demand.

Big West Oil Company, Frontier Oil Corporation, and Phillips 66 Company ("Big West", "Frontier", and "Phillips") indicated their support for Express because it provides their refineries with the flexibility of crude oil types which are available from Canada.

Crysen Refining, Inc. and Total Petroleum, Inc. indicated in letters of comment that they also supported Express because the pipeline would allow them to achieve feedstock flexibility and to receive competitive transportation rates.

Amoco, Koch, Imperial, IPL, and Wascana/Texaco/Butte were opposed to the Express Pipeline proposal.

Amoco argued that the Board should not include any demand for the Billings market in its evaluation of the application as there is no pipeline connection to Billings and, in addition, existing systems would adequately serve this market.

With respect to PADD IV, Koch stated that, since Express did not undertake a detailed assessment of the competitive strengths and weaknesses of the southern PADD IV refineries, any conclusion that existing refinery capacity would be maintained throughout the economic life-cycle of Express would be pure conjecture. Koch also questioned how Express's shippers would be able to place 7 900 m³/d (49,700 b/d) of heavy crude oil into the Wood River market at attractive prices, let alone 11 100 m³/d (69,800 b/d) in light of the competition from offshore barrels. Koch submitted that the most likely market for heavy crude oil is northern PADD II. Koch also argued that if the 3 700 m³/d (27,300 b/d) of heavy crude oil that is forecasted by Express for the Billings market actually moves to Wood River, then the issue of capacity constraint on Platte becomes even more pronounced.

Imperial submitted that Express had not demonstrated any fundamental change in crude oil markets which would indicate that the pipeline is required more today than it was two years ago, at the time of the Company's initial application in 1993¹. Imperial further noted that, in the absence of any publicly available evidence as to the transportation contracts signed by refiners in PADD IV, it was unable to comment on Express's contention that a market pull has developed in that region.

IPL argued that there are no new markets for western Canadian crude oil production which the Express Pipeline could serve that are not already connected to the existing pipeline infrastructure.

Wascana/Texaco/Butte submitted that the southern PADD IV market is satisfied. This group argued that their pipelines can serve this market with additional feedstocks because, at present, their systems are significantly underutilized.

6.2 PADD IV Supply

In support of its application, Express submitted an estimate of future crude oil production volumes for the PADD IV region, prepared by Netherland Sewell and Associates, Inc. ("Netherland Sewell"). The estimated decline rate for the PADD IV region amounted to approximately seven percent per year, and the study concluded that this decline rate was consistent with historical performance for the region over the 1992 to 1994 time frame.

The EAI report brought into evidence by Wascana/Texaco/Butte, on the other hand, forecast a production decline rate for the region in the range of 4.0 to 4.4 percent per year. In addition, cross-examination by IPL established that a study conducted by Purvin & Gertz in June to August 1995 had forecast a production decline rate in PADD IV of five percent per year, on average, over the next six years and 4.3 percent per year from the years 2000 to 2005.

¹ Express previously filed an oil pipeline facilities application with the Board on 3 October 1993. That application was subsequently withdrawn on 15 November 1993.

Express argued that there was no challenge to the conclusion that PADD IV production levels were declining. The Company further argued that the EAI report was hastily prepared and based largely on outdated information. Express further argued that this study was not based on any field level work, just on a basin analysis and that the information was not prepared by anyone with expertise as a reservoir geologist or engineer. For these reasons, Express argued that the analysis prepared by Netherland Sewell was not seriously challenged and urged the Board to rely on its evidence.

IPL and Wascana/Texaco/Butte argued that PADD IV decline rates forecast by EAI and Purvin & Gertz fell below those used by Express, and that this evidence combined with the lack of demand in PADD IV established no macro-economic need for the Express Project in the PADD IV region. Wascana/Texaco/Butte refuted the arguments of Express concerning the credibility of the EAI report, noting that it had been prepared at the request of the Montana Department of Environmental Quality. They argued that EAI was a highly reputable consulting firm, with extensive experience and expertise in the analysis of reserves and production in the Rocky Mountain area, and that the EAI analysis was based on sound technical principles. They noted that production information for 1995 showed a 1.3 percent increase over 1994 due to tax incentive programs, enhanced technology, and new drilling techniques. Wascana/Texaco/Butte further pointed to the evidence demonstrating that decline rates for western Canada have been consistently overestimated.

6.3 Alternative Pipelines

The pipeline system transporting the largest volumes of crude oil out of the WCSB is IPL. Able to transport oil from most areas of the WCSB, IPL currently transports over 60 percent of western Canadian crude oil to markets in Canada and the U.S., with Chicago and Ontario being the two largest refinery markets. During the OH-1-95 hearing, IPL announced that through-toll agreements had been reached with pipelines downstream of Chicago to lower the toll for transporting western Canadian oil to Patoka and Wood River in southern PADD II.

In September 1995, IPL filed its System Expansion Program Phase I ("SEP I") application, proposing to expand its system by 18 900 m³/d (120,000 b/d) to be in service by 31 December 1996. The Board approved the application in January 1996 (OH-2-95 Reasons for Decision). That same month, IPL filed another system expansion application with the Board which would see its capacity increase by approximately 19 600 m³/d (120,000 b/d). This expansion, known as the System Expansion Program Phase II ("SEP II"), was characterized by IPL as being a competing alternative to Express. IPL's expansion will be considered by the Board in a separate proceeding (OH-1-96). Currently, any crude oil which could access the Express system at its proposed Hardisty Terminal could also access IPL's system.

By taking oil off the IPL system at Regina, Saskatchewan, Wascana can transport crude oil south, through the Texaco system and into the Butte Pipeline. From the Butte system, crude oil can move to Guernsey or to Casper through the Belle Fourche Pipeline system. During the hearing, Wascana announced that it had signed an agreement whereby these three systems will be operated as one combined system to simplify shipping arrangements, improve efficiency of operations, improve petroleum movements through the minimization of tank use through tight-lining, and encourage movements of western Canadian crude oil to markets in southern PADD IV.

The Bow River Pipeline delivers crude from southeast Alberta destined for Billings, Montana through the Milk River Pipeline, the expanded CENEX Front Range system, and finally through Conoco Inc.'s ("Conoco's") Glacier system. The capacity of the Front Range system has recently been expanded to approximately 17 500 m³/d (110,000 b/d).

Also transporting crude from Alberta to Montana is the Rangeland Pipeline. This pipeline has a capacity of approximately 10 300 m³/d (65,000 b/d) and connects to Conoco's Glacier system. The Front Range Pipeline terminates in Laurel, Montana, but a partnership between Amoco and Conoco proposes to build a connection from Laurel to existing Amoco pipelines shipping to southern PADD IV.

Trans Mountain Pipe Line Company Ltd. ("Trans Mountain") ships crude oil and petroleum products from Edmonton to the West Coast. While not an alternative to ship crude oil to PADDs II or IV, crudes which pass through Edmonton to access Express at Hardisty could also access Trans Mountain and thus have an effect on the potential supply available to Express.

Considerable interest has also been shown for new pipeline capacity into the end markets which Express would serve. For example, the proposed Seaway project, which involves the conversion of a natural gas pipeline to oil service, would initially allow the transportation of 47 700 m³/d (300,000 b/d) of crude into Cushing, Oklahoma. From Cushing, this crude oil has pipeline access to the Patoka/Wood River markets targeted by Express. Through information requests and cross-examination, the RMEC requested Express to examine a number of projects which, if built, might affect Express's markets.

Express submitted that many of the new pipeline projects which have recently arisen are competitive responses to its own project. However, the Company stated that none of the proposed projects are true alternatives to Express in terms of market diversification, enhancement of the variety of crude available in the market, competitive long-term transportation rates, and as a long-term solution to projected shortfalls in the market.

Express's view of the Wascana/Texaco/Butte system was that the restricted number of crude oils which this system can carry, the limited potential for future expansions, the number and different sizes of pipelines through which crude oil has to flow to access the southern PADD IV market, and the frequency with which the oil moves through tankage on the system are all factors which make this system an unattractive alternative to Express. Express further submitted that the fact that this system is currently underutilized and has unsuccessfully been attempting to market expansions for several years can be taken as evidence that it is not of interest to Canadian producers.

Concerning the Rangeland and Bow River pipeline systems, Express stated that they do not access crude at Edmonton and submitted that the crudes they do access are in limited demand in the PADD IV markets south of Billings.

Express argued that the IPL SEP II expansion would be a worst-case scenario for western Canadian producers. Express noted that SEP II would not access PADD IV and suggested that the SEP II project would lead to the saturation of the Chicago market with Canadian crude, causing downward pressure on the crude price because oil producers in the WCSB are price-takers. Express submitted that this effect would also occur if IPL is used to ship oil south to Wood River. The costs of IPL's expansion would be borne by all IPL shippers, causing a decline in netbacks for all shippers on IPL.

Express argued that SEP II does not address the impacts of the potential reversal of IPL's Sarnia to Montreal line (Line 9), which would require that new markets for Canadian crude be found. Finally, Express noted that, if built, SEP II will not be completed for two or more years after the proposed completion of Express.

Express acknowledged that the tolls on IPL to Wood River and Patoka would be a few cents lower than the tolls to the same destinations on Express. Express argued, however, that the benefit of accessing those markets and avoiding Chicago altogether outweighs this extra cost. Currently, Canadian crude accessing the Wood River market must flow through Chicago. This provides negotiating leverage to crude oil purchasers in Chicago because they can offer a price just marginally higher than that in Wood River for crude which flows past their refineries on its way to Wood River. If Canadian crude can be shipped to Wood River by an alternative route, such as Express, the Chicago crude purchasers would have to go back to Hardisty, the location where alternative routes can be accessed, to ensure they can access the crude required for their refineries. Express's view was that the existence of an alternative market to Chicago would create a dynamic between market participants which would allow the price for Canadian crude to be bid up.

Express discussed a number of actual or proposed projects which would ship crude or refined products into its markets in PADD IV and PADD II (including the Amoco/Conoco extension to deliver crude from Billings to southern PADD IV, the Seaway crude pipeline from the Gulf Coast to Cushing, and the Olympic products pipeline from Puget Sound into Montana). The Company stated that, to the extent these proposed pipelines were built before Express, it would compete with them. To the extent that these proposals were not built before Express, having the Express Pipeline in service would reduce the markets available and thus the pipelines would probably not be built.

Express argued that the building of its system would provide benefits in the form of continuous toll-on-toll competition, the capturing of new markets, and timely market diversification. In Express's view, none of these benefits would be produced by any of the alternative pipeline proposals discussed during the hearing. Express pointed to the recently-announced expansion projects, the through-tolls on IPL to Patoka and Wood River, and the joint operating agreement on the Wascana/Texaco/Butte system as efficiencies now available as a direct result of its application.

Three PADD IV refiners, Big West, Frontier, and Phillips, stated in argument that the Express system was the best alternative for accessing new crude oil supplies for their refineries.

FOX agreed with Express's claim that there were no practical alternatives to the Express system. FOX expressed the view that none of the alternatives separately or together could provide the benefits which Express does. FOX stated that Express would provide competitive benefits in excess of the incremental capacity it provides by increasing competition, relieving capacity constraints, sharing risks with shippers, and by providing direct access to new markets in PADD IV.

FOX noted that IPL's SEP II expansion would not provide the benefit of a new transportation option, it would not serve the PADD IV market, it would not provide contractual benefits such as assured access and stable tolls, and that its in-service dates are years behind those of Express. FOX argued that Express offers a greater increment to transportation out of the WCSB for about the same cost as SEP II.

The ADOE submitted that the proposals brought forth by other pipeline companies were competitive responses to Express, and noted that each will be examined by the market and regulators once the details have been finalized. The ADOE argued that alternative market access would be beneficial to western Canadian producers and that the Express Project is ripe and should proceed.

Amoco submitted that the Express case is deficient as it does not properly address how new pipelines or expansions of existing pipelines into PADD IV would affect Express's proposal. Amoco further submitted that Express did not take into account much of the information about competing systems that became available after the application had been filed. Amoco argued that the onus should be on Express to make its case and that by ignoring the alternatives which may affect the need for its pipeline, Express had not made the case for its project. Further, Amoco suggested that the alternative projects proposed were not reactions to Express but reactions to market fundamentals.

Koch submitted that it would have been more appropriate to consider the Express application and IPL's SEP II application in a joint proceeding. Further, Koch noted that Express had not factored its greater transit times to Wood River, relative to IPL, and thus would not be competitive with IPL in the southern PADD II market.

Murphy and CENEX argued that there is adequate pipeline capacity to meet the demands of the Montana refineries today and in the future. The combined capacity of the Front Range system and the Conoco/Glacier system bringing Canadian crude into the Billings area, after planned expansions, would be 27 000 m³/d (170,000 b/d). The demand for crude in Montana is only 21 000 m³/d (132,000 b/d), leaving a surplus of crude oil to be shipped south of Billings. Murphy and CENEX argued that this demonstrates that there is no need for the Express Project on the part of Montana refiners.

Imperial submitted that it currently is, and will continue to be, cheaper to transport oil on IPL to Chicago than on the Express system to Wood River, and for this reason, IPL will continue to be the first choice for Canadian producers. Imperial suggested that if the Board is prepared to approve the Express application, it would be inappropriate for the Board to stand in the way of SEP II, which Imperial considers to have strong support from the industry as a whole.

IPL submitted that Express is not competitive with other pipeline alternatives today and, because of its rigid toll structure, it would not be competitive in the future. IPL argued that there are no new markets for Canadian crude which the Express Pipeline could serve which are not already connected to the existing pipeline infrastructure. In IPL's view, the southern PADD II market could be served better, at a lower transportation cost and overall cost by its own system. It argued that Express cannot compete with the transportation costs on IPL into Patoka or Wood River. Further, because of degradation and contamination costs, incremental costs due to increased transit times, and terminalling costs, IPL stated that Express would simply not be competitive in southern PADD II.

IPL noted four issues which the Board should take into account when considering the feasibility of Express. These issues are: the assertion that Express will depress the prices for western Canadian crude; that Express may exacerbate apportionment on IPL; that constructing Express would inevitably increase the cost of shipping on IPL's system; and, finally, that Express would not have the flexibility to compete with IPL or others in the future.

The EAI study, filed in evidence by Wascana/Texaco/Butte, concluded that the existing pipelines shipping oil into PADD IV, including the Wascana/Texaco/Butte system, currently have more than

adequate capacity and can be inexpensively expanded to meet any future incremental demand. Wascana/Texaco/Butte noted that its pipeline system is not currently operating at capacity, and suggested that there is little or no unsatisfied demand from the refiners in PADD IV. Wascana/Texaco/Butte further argued that the consequences of the Express Pipeline being built would be negative.

6.4 Transportation Agreements and Open Season Results

In the initial stages of assessing the viability of its project, Express determined that the project economics would not yield an acceptable return in the short term. Cost-of-service tolls would have been too high to attract shippers in the targeted markets and lower tolls would not allow Express's sponsors to realize an acceptable return on their investment, given the project risk.

To address these concerns, Express developed a tolling system whereby the risk could be shared between the project sponsors and the shippers through the use of long-term transportation contracts. These contracts offered shippers secure access to the Express Pipeline system, stable transportation costs, and lower tolls for longer term commitments in exchange for a commitment to pay tolls over the life of the contract. In exchange for offering lower tolls and secure access, Express gained a more reliable and stable revenue stream and a long-term commitment from third parties, resulting in potential savings in financing costs and a demonstration of the long-term need for the Project. Express concluded that this risk-sharing arrangement would be attractive to both shippers and the project sponsors.

Express conducted an open season during the autumn of 1995 to solicit contractual support for its project from potential shippers. In exchange for signing a long-term transportation agreement, potential shippers were offered unapportioned access to the Express Pipeline for a period of 5, 10, or 15 years at progressively lower tolls (as detailed in Chapter 4). The initial open season began on 12 September 1995 and closed on 27 October 1995.

On 27 November 1995, Express announced that in response to concerns raised by participants in the open season, it had made revisions to the transportation service agreements and its tariff. A supplemental open season was held between 28 and 30 November 1995. On 15 December 1995, Express filed the results of its open seasons, which are presented in Table 6-4.

In argument, Express stated that its project would not have proceeded without this contractual support. In Express's view, the results of the open season provide real and demonstrated evidence that other parties see a need for the Project, and that they are prepared to show their support through financial commitments.

Table 6-4
Open Season Results

<u>Term</u>	<u>Number of Contracts</u>	<u>Volume¹</u>
5 Years	6	30,000 b/d
10 Years	2	4,000 b/d
15 Years	6	<u>112,000 b/d</u>
Total		146,000 b/d

¹ The volumes were reported by Express in barrels per day. The metric equivalents are 4 770, 635, and 17 800 m³/d (for 5, 10, and 15 year terms, respectively) for a total of 23 315 m³/d.

During the hearing, Imperial made a motion to direct Express to provide specific information for each of the contracts signed. Specifically, Imperial asked Express to identify the contract term, the volume commitment, whether the shipper is a refiner, producer, or marketer and if the shipper is a refiner, where it is located, and finally, whether or not the shipper is a related party to Express, AEC, TCPL, or any of their affiliates. During argument for this motion, Imperial revised its motion by requesting that refiners who are committed shippers only be identified as being located in PADD II or PADD IV.

Imperial argued that this information was necessary because the extent and nature of the commitments between Express and its shippers was a cornerstone of Express's case that the proposed facilities are required by the present and future public convenience and necessity. Imperial noted that details of shipper contracts are routinely filed in other facilities expansion applications before the Board, and argued that the requested information would be required under section 47 of Part X of the Board's Filing Guidelines had Express not been granted an exemption from this section. Imperial also noted that the contracts themselves do not contain a confidentiality clause and that any party to a contract would have been fully aware of the possibility that the contracts could become part of the public record in a regulatory proceeding. Imperial's motion was framed so that the information requested would not reveal the identity of the shipper, only the terms of the contract and the type of company. Imperial was supported in this motion by Amoco, Koch, and IPL. All parties in favour of the motion expressed the view that without this information, the Board would not be able to determine the level of actual third-party support for the proposed facilities.

Express noted that the results of the open season had been filed in an aggregate fashion, along with the pro forma contracts and the open season documents, and argued that this was the appropriate way of providing information on shipper support. Express argued that the information which was requested in this motion would seriously prejudice shippers' ability to negotiate commercial transactions. If a downstream buyer knew one seller of oil was committed to pay demand charges on Express, that buyer would be in a strong position because they knew the shipper had an incentive to ship the oil. When Express initiated its open season, all bidders were assured that their bids would be confidential, unless Express was otherwise directed by the Board. Express noted cases in which parties requested that the Board compel an applicant to provide confidential information but the Board protected the confidential information because of a commercial sensitivity. In Express's view, no party to the hearing would be prejudiced if the detailed information about the results of the open season were not filed. Express was supported in its arguments by FOX and the ADOE.

After hearing argument on the question of whether or not that information should be produced, the Board asked parties to consider the applicability of the confidentiality provisions found in the NEBA and the CEAA, specifically section 16.1 and subsection 35(4) respectively. Parties were asked to address argument to that question prior to the Board's decision on whether or not it would direct that the requested information be produced. A summary of these arguments was provided in the text of the Board's ruling, reproduced in Appendix III.

The Board ruled that Express should provide to the Board the information as set out in Imperial's revised motion. This information was provided to the Board and, after examining it and the arguments made concerning the applicability of the confidentiality provisions of the NEBA and the CEAA, the Board came to the conclusion that Express met the onus under the NEBA for the information to be received on a confidential basis.

Amoco stated that it would like to see direction from the Board with respect to the renewal rights which go along with the transportation contracts between Express and its shippers. These rights may provide shippers with an advantage in addition to unapportioned access to the pipeline.

Imperial, Koch and IPL argued that there should be significant representation among committed shippers from downstream refiners. The absence of these downstream commitments would show a lack of a market pull for the Express Pipeline.

Imperial submitted that if significant volumes of crude oil are contracted to affiliates of Express, third-party contracted shippers could be harmed. For example, an affiliate holding capacity for 15 years could help Express by reselling its capacity to an uncommitted shipper at the 15-year rate and nominating its displaced volumes to uncommitted service.

IPL argued that the Board should exercise extreme caution in assessing how it views Express's transportation contracts. It noted that despite years of development, Express has only been able to attract 12 shippers for less than 10 percent of western Canadian production to its proposed system.

IPL and Koch argued that if any significant portion of the contracted space is to affiliates, the Board should consider that these agreements are not like third-party agreements. In IPL's view, these agreements should be discounted entirely.

In order to assess what the contracts mean, IPL submitted that the open season should be re-opened to establish whether or not the contracted shippers would re-affirm their dedication to Express in light of recent events, such as the establishment of the Lakehead/Mobil/Shell joint tariff. FOX submitted that a re-opening of the open season would be totally unwarranted since the contracted shippers are sophisticated parties and these recent events were well known in the industry before the close of the open season.

6.5 Views of the Board

The Board considers the existence of signed long-term transportation service agreements to be strong evidence of the need for the Express Pipeline. The fact that market participants have made financial commitments to Express provides the Board with comfort that the Express Pipeline will access

profitable markets for western Canadian crude oil producers and that the pipeline will be used and useful.

The Board notes that a great deal of information was submitted during the course of the hearing on markets and competitiveness. Some parties argued that western Canadian crude oil requires new markets while others submitted that existing pipelines already serve these markets, and can do so at lower cost than Express. The Board is of the view that the North American crude oil market is part of the global market and can generally obtain supplies of crude oil from indigenous sources or from abroad. New pipelines connecting producing and consuming regions within this continental market will change the market dynamics in a way that cannot be predicted with certainty.

The Board notes that PADD IV is a landlocked market and that Canadian crudes delivered via Express would be highly compatible with the needs of refiners, particularly those in Salt Lake City (which require light sweet or synthetic crude oil). Although no connection is planned for Billings refiners at this time, the Board is of the view that the heavy crude volumes forecast by Express for the Billings market could be shipped to southern PADD II or that similar volumes of light crude oil could be shipped to southern PADD IV.

With respect to the influence of local crude oil supply, the Board considers that the market volumes realized by Express will be influenced by the decline rates of specific grades of crude oil in producing areas tributary to the particular areas where deliveries are to be made by Express. The Board notes that no intervenor argued that PADD IV production would not decline in the future, but that the issue was the rate of this decline. The Board views both decline rates, that proposed by Express and that by EAI (seven and four percent respectively), as plausible given the information available.

With respect to southern PADD II, the Board notes refinery capacity in this market approximates 289 600 m³/d (1,824,500 b/d) compared to an estimated throughput via Express and Platte of 11 100 m³/d (70,000 b/d) or four percent of that capacity. The Board is of the view that this market can readily absorb this forecasted throughput.

The Board considers that the Express system will additionally benefit the Canadian crude oil producing sector by increasing the amount of competition within the pipeline sector. The Board further considers that increasing the number of transportation options and markets available to western Canadian producers will help them realize better prices for their crude oil and stimulate efficiency and innovation within the pipeline sector.

Chapter 7

Disposition

The foregoing chapters constitute our Reasons for Decision in respect of the application heard by the Board in the OH-1-95 proceeding. The Board has found that the proposed Express Pipeline is and will be required by the present and future public convenience and necessity, provided the conditions outlined in Appendix III are met. Therefore, the Board will seek approval from the Governor in Council for the issuance of a certificate.



R. Priddle
Presiding Member



A. Côté-Verhaaf
Member



R.D. Revel
Member

Calgary, Alberta
June 1996

Chapter 8

Dissent

I am of the opinion that the evidence provided by Express is inadequate, from both a legal and a scientific perspective, to permit the Board to determine the environmental effects of the pipeline on vegetation and wildlife. Furthermore, there is inadequate evidence to determine the cumulative environmental effects. Accordingly, I have dissented from the decision of the Panel in the Joint Panel Report. The environmental effects of the Project constitute a major component of the public interest considerations inherent in a decision under section 52 of the *National Energy Board Act*. I am unable to conclude that the public interest will be served by the proposed Express Pipeline and I therefore dissent from my colleagues' decision in this matter.



G. Lewis
Member

Calgary, Alberta
June 1996

Appendix I

List of Issues

The list of issues that appeared in Hearing Order OH-1-95 was as follows:

Part III

1. The economic feasibility of the proposed Express Pipeline having regard to, *inter alia*:
 - (a) the outlook for the long-term supply of oil available to be transported on the proposed pipeline;
 - (b) the outlook for the long-term demand for oil in the markets proposed to be served by the Express Pipeline; and
 - (c) the ability of Express to provide competitive transportation services for oil and to successfully attract these products to its system over the long term.
2. The adequacy of connecting pipeline capacity, both upstream and downstream, to accommodate the project.
3. The potential environmental effects and socio-economic effects of the proposed facilities, including those factors outlined in section 16 of the *Canadian Environmental Assessment Act*.
4. The appropriateness of the location of the proposed facilities and the land rights acquisition.
5. The appropriateness of the design of the proposed facilities.
6. The adequacy of the public consultation process.
7. The appropriate terms and conditions to be included in any certificate which may be granted.

Part IV

8. The toll methodology and principles, including the proposed market-based and incentive tolling.
9. The method of toll and tariff regulation, including the proposal that the Express Pipeline be regulated on a complaint basis as per the Group 2 pipeline classification.

Appendix II

Rulings

EPL [Express] Request for Relief re: Filing Requirements

(17 January 1996)

The Board's Rules of Practice and Procedure, in Section 15(1)(b), require an Applicant to file the information referred to in the Board's published Policies and Guidelines. The Board's Guidelines for Filing Requirements, in Part IV, require an Applicant for a certificate in respect of an oil pipeline to file certain information "unless the Board otherwise directs".

Upon a review of the information filed and a comparison of it against the Guidelines for Filing Requirements, the Board decides whether or not an Application is ready for consideration by way of a Hearing.

Generally, by setting the Application down, the Board has implicitly decided that the Application is ready for consideration by way of an oral Hearing.

No explicit relief from the Filing Requirements had been granted in this case, and Rocky Mountain Ecosystem Coalition raised this issue asked to speak to it. The Panel asked Parties to comment on whether relief should be granted on the basis of whether the Application is ready to be considered.

The purpose of the Guidelines for Filing Requirements is to ensure that an Application is ready for consideration.

After considering the arguments of Parties as to whether or not the relief should be granted and the Application should continue to be heard, the Panel finds that it is prepared to grant the Applicant relief from the Guidelines for Filing Requirements, as applied for by letter of January 16, 1996, together with a relief from the requirements of Part X, as requested orally this morning.

The Panel finds that the Evidence filed by the Applicant is sufficient to permit this Hearing to proceed.

The Panel notes, though, that this does not change the burden of proof. The Applicant must still satisfy the Panel that the proposed facilities are in the public convenience and necessity, as described in Section 52 of the *National Energy Board Act*, and that Toll Orders applied for should also be granted.

Intervenors are able to argue that this burden has not been discharged by the Applicants, on the Evidence filed.

Furthermore, Intervenors may seek further information from the Applicant on the basis that it is relevant to the ultimate decision to be taken by this Panel. In other words, the decision by this Panel to relieve the Applicant from these Filing Requirements is only a decision that the information filed is

sufficient to set the matter down for an oral Hearing; it is not a decision that the information filed is sufficient to approve the Application.

The burden of proving that the Application should be granted still rests with the Applicant. The Panel does not agree that the granting of this relief prejudices Parties in cross-examination of Express's Evidence.

**RMEC Motion to Strike a Witness Panel Comprised of NEB
Technical Staff re Canadian Energy Supply/Demand Report**

(19 January 1996)

The RMEC has asked the Board to strike a Panel of its Technical Staff who were involved in the preparation and writing of Chapter 7 of the 1994 Technical Report of the National Energy Board, entitled "Canadian Energy, Supply and Demand, 1993-2010".

The Board Panel would be available for cross-examination by Parties to this Hearing.

Parties acknowledged that a similar request by the RMEC was refused by the Board in the GH-3-94 Gas Export Hearing, held in September and October 1994.

The RMEC argued that subtle but significant differences exist to differentiate that Application from the one presently before the Panel.

In that Application, the RMEC stated the Applicants had other material in addition to the Technical Reports produced by the Board with which to make their case. In this Application, he argued, the Applicant was relying on the Board Reports.

In the Panel's view, the difference suggested by Mr. Sawyer is irrelevant to the present request before the Panel.

At issue is the question of whether Board Staff can be cross-examined on the Witness Stand on the Board's most recent Supply/Demand Report.

The Panel in this Application finds itself in agreement with the reasoning of the Board set out in its Ruling of September 22, 1994 in the GH-3-94 Hearing. The Application is therefore refused.

As noted in that Decision, the onus is on the Applicant to defend its Evidence under cross-examination.

**RMEC Motion to Strike Reference
to the NEB's 1994 Supply/Demand Report
from the Evidence of Express on the Ground that
the Hearing Panel would be Biased in Considering Such Evidence**

(23 January 1996)

Mr. Sawyer, on behalf of RMEC, brought a Motion to strike all three volumes of the National Energy Board's 1994 Supply/Demand Report from the Evidence of the Applicant on the grounds that there would be a reasonable apprehension that the Panel would be biased in considering a report written by Board Staff.

The Panel has already ruled that the Supply/Demand Report is a public document and may be used by a Party as part of the evidentiary record in a regulatory proceeding. We do not intend to revisit that decision.

As the Board ruled, at page 11 of the GH-3-94 Reasons for Decision, there is sufficient documentation of the Board's assumptions and methods of analysis presented in these documents for the Applicant and Intervenor to fully consider, question and test their contents.

The onus is on the Applicant, as the Party seeking to rely on the Report, to defend its contents and conclusions under cross-examination.

As we have previously stated, if RMEC is of the view that the Applicant's reliance on the Report is unreasonable or inappropriate, it may raise this issue in its Final Argument.

The Board is not presenting evidence in this Application, and is therefore not sitting in judgment of its own evidence. It will, rather, be considering and weighing the evidence put forward by the Applicant and the Intervenor.

**Imperial Motion for an Order to Direct Express to
Provide Specific Information re Transportation Contracts**

(25 January 1996)

Mr. Huber, Counsel for Imperial Oil Limited presented a Motion for an order directing the Applicant, Express, to provide certain information with respect to the transportation contracts entered into by Express.

The information sought was: (A) contract term; (B) volume commitment; (C) whether the Shipper is a refiner, producer or marketer, and if a refiner, the location of the refinery; and (D) whether the Shipper is a related Party to Express Pipeline Ltd., Alberta Energy Company, TransCanada PipeLines Limited and any of their affiliates.

A definition of "related parties" was provided by Mr. Huber and can be found at line 30, Page 902 to Lines 1 to 8, page 903 of the transcript.

Mr. Huber subsequently amended his request -- which amendment can be found at Lines 19 to 20 of Transcript 975, and Lines 5 to 7 of Transcript 1004 -- to advise that a refiner need only be identified as a PADD II Refiner or a PADD IV Refiner.

After considering the arguments of the Parties as to whether or not this information should be produced, the Panel has decided to require Express to provide this information to it.

No decision has yet been made on whether or not this information should be kept confidential. The Panel has decided to first review this information before deciding whether the requirements of Section 16.1 of the National Energy Board Act have been met.

**Imperial Motion for an Order to Direct Express to
Provide Specific Information re Transportation Contracts**

(1 February 1996)

Mr. Huber, counsel for Imperial Oil Limited (IOL) brought a motion that the Panel direct Express Pipeline Ltd. ("Express") to provide specific information in relation to the transportation contracts. In respect of each contract he asked that Express provide the following information:

- (a) Contract term;
- (b) Volume commitment;
- (c) Whether the Shipper is a refiner, producer or marketer, and if a refiner, the location of the refinery;
- (d) Whether the Shipper is a related party to Express Pipeline Ltd., Alberta Energy Company, TransCanada PipeLines Limited or any of their affiliates.

Mr. Huber then went on to provide a definition of related parties.

After hearing argument on the question of whether or not that information should be produced, the Panel asked parties to consider the applicability of the confidentiality provisions found in the *National Energy Board Act* ("the NEB Act") and the *Canadian Environmental Assessment Act*, specifically sections 16.1 and 35(4) respectively. Parties were asked to address argument to that question prior to the Panel's decision on whether or not it would direct that the requested information be produced.

Section 16.1 of the *NEB Act* provides:

16.1 In any proceedings under this Act, the Board may take any measures and make any order that it considers necessary to ensure the confidentiality of any information likely to be disclosed in the proceedings if the Board is satisfied that:

- (a) disclosure of the information could reasonably be expected to result in a material loss or gain to a person directly affected by the proceedings, or could reasonably be expected to prejudice the person's competitive position; or**

- (b) the information is financial, commercial, scientific or technical information that is confidential information supplied to the Board and
- (i) the information has been consistently treated as confidential information by a person directly affected by the proceedings, and
- (ii) the Board considers that person's interest in confidentiality outweighs the public interest in disclosure of the proceedings.

Subsection 35(4) of the *Canadian Environmental Assessment Act* provides:

35(4) Where a review panel is satisfied that the disclosure of evidence, documents or other things would cause specific, direct and substantial harm to a witness, the evidence, documents or things are privileged and shall not, without the authorization of the witness, knowingly be or be permitted to be communicated, disclosed or made available by any person who has obtained the evidence, documents or other things pursuant to this Act.

Counsel for IOL submitted that disclosure of the information requested could not reasonably be expected to result in a material loss or gain to a person directly affected by the proceedings or be prejudicial because it would not identify anyone. He further submitted that should the Panel decide that the information should be kept confidential, it would still be preferable for the Panel to receive the information than for it not to be disclosed at all. In that instance, he argued, Express should be required to provide copies of the signed transportation agreements to the Panel.

Mr. Holgate, on behalf of Amoco Canada Petroleum Company Limited, stated that the question was whether or not the information is so **"prejudicial to a party that prejudice outweighs the benefit of that information to the process, the Board, and the parties."** He noted that the aggregate information being sought does not identify parties nor does it associate volumes with particular parties or locations. It was his submission that Express must establish not only that the information is confidential in the commercial sense, but also that it is information that would permit other parties to affect the commercial negotiations of the shippers. Unless that can be done, there is no prejudice which would outweigh the reasons for the release of the information.

Mr. Miller, on behalf of Bow River Pipe Lines Ltd., Koch Pipe Lines Ltd. and Koch Oil Co. Ltd., submitted that without the information he would have to cross-examine and argue in a hypothetical fashion. He also noted that if the information is provided only to the Board, it should include all information and not just what was requested in the Motion.

Ms. Moreland, on behalf of Interprovincial Pipe Line Inc., also pointed out that the availability of the information would enable counsel to avoid putting hypothetical situations to the witnesses in cross-examination. She submitted that if the information was to be provided only to the Board, then the actual contracts should be made available to the Panel, along with an explanation of the nature of any of the affiliated corporations.

Mr. Sawyer, on behalf of Rocky Mountain Ecosystem Coalition, suggested that the Board should have access to the information prior to making a determination if the material should be treated in a confidential fashion. Furthermore, he submitted, the information is relevant and should be produced.

Mr. Keough, for Express, argued that whether you look at the requirements of 16.1(a) or (b), there is a material loss to the persons directly affected by the proceeding. The shippers on Express are trying to finalize commercial arrangements and deal with their individual situations. To require public disclosure at this time would have significant negative impact on the shippers' positions and could definitely be expected to subject them to a material economic loss. He noted that the information is commercial in nature and has been consistently treated as confidential by the affected parties. Furthermore, he submitted, there was nothing put before the Panel which indicates that there is a need for the information in the degree of detail sought. The parties are free to question the commitments Express has obtained on an aggregate basis, and there is no public interest to be served by the disclosure of the requested level of detail.

Mr. Gretener, on behalf of those intervenors who have styled themselves as "Friends of Express", stated that IOL and its supporters have admitted that identification of the shippers would be prejudicial. For that reason they couched their Motion in such a way that the actual names of the shippers would not be released. He submitted that sophisticated industry participants would be able to draw conclusions about the identity of the shippers from the information sought.

Mr. Reid, for the Alberta Department of Energy, submitted that the information should be kept confidential on the basis that it could be expected to prejudice the commercial position of parties who have contracted for capacity on Express.

In reply, Mr. Huber noted that in reference to "location" in his Notice of Motion, he is seeking only a definition of whether a refiner is located in PADD II or PADD IV and his Motion was amended accordingly. It was his view that anybody who wished to identify the shippers on Express would have greater success by examining the names of the Intervenor who appeared on each side of this Motion. That, he submitted, would be a safer source of information than the information requested in this case.

The Panel first directed that the information requested in the IOL Notice of Motion, as amended, be provided directly to the Panel. It reserved its decision on whether that information met the requirements necessary for retention on a confidential basis until the requested information had been examined.

The Panel has now examined the shipper information provided in response to its direction, reviewed the arguments of the parties as contained in the transcripts of this proceeding and come to the conclusion that the release of this information could permit parties to identify the names, volumes and terms of at least some of the Express shippers.

As a result, the Panel is satisfied that the requirements of both subsections (a) and (b) of section 16.1 of the NEB Act have been met. First, the disclosure of the information provided could reasonably be expected to result in a material loss to the shippers who are presently trying to negotiate their commercial arrangements related to their commitment to ship oil on the Express pipeline. A third party dealing with them to buy or sell oil would be in a better bargaining position if it were known that the shipper had committed to a long-term contract to ship oil on the Express pipeline and could be subject to demand charges should the shipper be unable to maintain appropriate throughput on the pipeline. In the Panel's view, their competitive position could reasonably be expected to be prejudiced.

Second, the information provided is commercial in nature and has been consistently treated as confidential information by both Express and the shippers to protect the shippers' ability to negotiate commercial arrangements with suppliers or purchasers. The Panel has concluded that intervenors adverse in interest are able to conduct their cross-examination and to make their arguments without the degree of detail which they are seeking. They know the volumes that have been committed for specific time periods and they are also aware that some of the shipper commitments have been made by companies affiliated or related to Express. Intervenors can still deal with the matter of the confidential information in the course of their arguments and make submissions on the weight it should be given by the Panel. As a result, in the Panel's view, the interest of the shippers in maintaining confidentiality at this stage of their commercial negotiations outweighs the public interest of disclosure of the proceedings.

It has been suggested by some intervenors that if the Panel is to treat this information as confidential, it should obtain copies of the actual contracts. The Panel has considered this suggestion, reviewed the information provided and decided that it does not require copies of the actual contracts. A pro forma contract was provided in the evidence submitted by Express and the summary of the commitments made by shippers. These are sufficient for the Board's purposes.

There is a confidentiality provision also found in the *Canadian Environmental Assessment Act*. As this Panel is a joint review panel under that Act, and is examining this application pursuant to both that Act and the NEB Act, the Panel reviewed subsection 35(4) to assess its applicability in this situation. No party demonstrated that the shipper information provided is relevant to the environmental assessment that is to be undertaken pursuant to the *Canadian Environmental Assessment Act* and the agreement entered into between the Minister of Environment and the National Energy Board setting out the terms of reference for this Panel. The Panel finds, therefore, that this information is irrelevant to the matters to be considered in the Joint Review Panel's report which is to be undertaken at the close of this hearing. As a result, in the Panel's view, there is not need to consider the applicability of this subsection to the information provided.

**Written Reasons for Ruling on a
Motion by Rocky Mountain Ecosystem Coalition
to Dismiss the Express Application due to the Applicant's
Failure to Comply with the Guidelines for Filing Requirements**

(6 February 1996)

Mr. Sawyer, on behalf of Rocky Mountain Ecosystem Coalition, brought a motion on February 2, 1996 at transcript 1980 to have the Express Application dismissed for failure to comply with the NEB's Guidelines for Filing Requirements. The Panel dismissed the motion without hearing from counsel for Express and stated that it would provide reasons for the dismissal at a later time (Transcript 2007).

This was the second motion by Mr. Sawyer to have the application dismissed on this basis. The Panel dismissed the earlier motion at transcript 302. In that instance, counsel for Express had asked for an exemption from specific provisions of the Guidelines. The Panel granted the exemption to the Applicant and determined that the balance of the evidence filed by the Applicant was sufficient to

permit this hearing to proceed. It was made clear in that ruling that the Panel's decision did not mean that the information filed was sufficient to approve the application but only that it was ready to be heard.

Mr. Sawyer has now asked for a dismissal of the application on the basis that Express has failed to comply with paragraphs 9(2)(e)(i) and (ii) of Part VII of the Guidelines. He also relied on Part I, section 3 of the Guidelines which states that if any information required by the Guidelines is not provided with the application, the application shall include the reasons for not including the information. Finally, he referred to Part VII, section 1 of the Guidelines which states that the information listed in Part VII shall be provided unless the Board otherwise directs.

In support of his motion Mr. Sawyer argued that he had established very clearly in his cross-examination that the Applicant's evidence did not consider a number of fish species, or address other species in the detail set out in the Guidelines. Mr. Sawyer stated that he intended to go through the same lengthy cross-examination with regard to terrestrial wildlife. The Panel determined, however, that it did not need to hear Mr. Sawyer's cross-examination on terrestrial wildlife as it was clear where he was going in respect of paragraph 9(2)(e)(ii) of the Guidelines. The Panel accepts that he would likely have established that the Applicant's evidence does not mention certain terrestrial wildlife species or that some species were not addressed in the manner set out in the Filing Requirements.

As the Panel ruled in the earlier motion, the purpose of the Filing Requirements is to ensure that an application is ready for consideration by way of a hearing. The issue, then, is whether the evidence filed by the Applicant is adequate to permit an oral hearing to proceed. Compliance with the Guidelines is not a question of the sufficiency of substance of the evidence filed by the Applicant, as Mr. Sawyer himself conceded in arguing his motion.

Mr. Sawyer has not convinced the Panel that this Application is not ready to be set down for hearing. In fact, since we have been in the hearing for three weeks it would appear to be clear that the Application was ready to be heard. It could be said that if RMEC thought that the environmental evidence did not comply with the Filing Requirements it should have raised this in its earlier motion rather than waiting until three weeks into the hearing, and after having cross-examined the Applicant's environmental panel for over two days.

This issue aside, however, the Panel is satisfied that the Applicant has filed information about the fish and terrestrial wildlife that may be affected by the project, as required by the Filing Requirements. What Mr. Sawyer takes issue with, in the opinion of the Panel, is the sufficiency of the Applicant's evidence in fish and wildlife and the scientific validity of the studies submitted by the Applicant. The sufficiency and scientific validity of the evidence that has been produced by the Applicant, while important to the matter before the Panel, does not go to the question of whether the applicant has met the Guidelines for Filing Requirements. The completeness or thoroughness of the Applicant's evidence relates to the burden of proof the Applicant must meet and may be addressed by RMEC in cross-examination, in its own evidence and in final argument. Furthermore, because the Applicant has, in fact, filed information in accordance with paragraphs 9(2)(e)(i) and (ii), it was not necessary for it to seek relief from these provisions in the Filing Requirements.

The Panel also notes that Mr. Sawyer was asked at transcript 1649 and 1650 to advise the Panel if any other parts of the application did not, in his view, properly meet the Filing Requirements. In addition, at transcript 1980-81 Mr. Sawyer was asked to include in this motion any other perceived deficiencies

in the Application in respect of the Guidelines. He based his motion only on the aforementioned sections of the Guidelines. The Panel therefore considers that all arguments related to any other sections of the Filing Requirements have been included in this motion and will not entertain any further motions with respect to non-compliance with the Guidelines for filing Requirements.

For the reasons set out above, the RMEC motion is dismissed.

Appendix III

Certificate Conditions

1. Express shall implement or cause to be implemented all of the policies, practices, and procedures for the protection of the environment included in or referred to in its Application, in its undertakings made to DFO and Environment Canada, and as adduced in evidence before the Board in the OH-1-95 proceeding.
2. Unless otherwise allowed by the Board, Express shall comply with the 1 August to 30 November schedule for pipeline construction, as provided in its construction schedule update. With respect to the ancillary facilities, unless otherwise allowed by the Board, Express shall also comply with the updated schedule of events as set out in Section 3.2.1 "Express's Proposal" of the "Express Pipeline Project - Report of the Joint Review Panel".
3. Express shall avoid the significant botanical community at Rattlesnake Coulee. Express shall file with the Board either further details confirming that it can avoid the area by narrowing the extra workspace or file the necessary information in regard to a re-route.
4. Express shall continue to work with landowners to resolve issues related to the visibility of station facilities.
5. Express shall locate all construction camps, equipment storage, warehouse areas, and staging areas outside of the Environmentally Significant Areas and areas of native grassland.
6. Once the Draft Reclamation Plan is finalized, Express shall implement measures for the reclamation of excavated areas upstream of the Hardisty Terminal.
7. Since Express's proposal to seek approval in the field for changes in its mitigation measures is found not to be acceptable, Express shall apply to the Board, for any changes to its mitigation measures provided in its Application, or other evidence adduced in the hearing process.

Prior to the Commencement of Construction

8. Prior to the filing of the plan, profile and book of reference pursuant to section 33 of the NEBA, Express shall file with the Board, for approval, any modifications that require a deviation from the proposed specific route as described in the application. Each filing shall include:
 - (a) the results of public consultation (where appropriate); the identity of any affected landowner(s); and the status of land acquisition (where appropriate);
 - (b) an airphoto (where the modification is greater than 50 m); an environmental issues list identifying all relevant effects of the re-routes on e.g. soils, vegetation, wildlife, hydrology and archaeological information; and
 - (c) the associated mitigation measures to render those environmental effects insignificant.

9. Express shall acquire all rights for Crown Lands necessary for the pipeline prior to the Board's approving the plan, profile and book of reference for the pipeline pursuant to section 36 of the NEBA.
10. For land farming activities, Express shall, at least 10 days prior to the commencement of the first disposal of drilling fluid components, file with the Board, for approval, a detailed disposal plan for each of the drilling fluid components. This plan should include but not be limited to:
 - (a) an estimate of the complete composition of the drilling fluid components including the relative volumes/quantities of water, cuttings and other material, and any additives;
 - (b) the chemical composition of the solid and liquid portions;
 - (c) sufficient evidence to demonstrate that the soil capability and texture, the current land use, and any other potential environmental issues will not be adversely affected by the disposal of drilling fluid components, on any right-of-way areas or other sites proposed by Express for disposal;
 - (d) documentation indicating that Express has the agreement of the landowner(s) whose private lands will be used for the disposal;
 - (e) documentation indicating that Express has an agreement in place with a waste disposal facility(ies) to dispose of drilling waste components in the event that land filling is proposed;
 - (f) detailed procedures to dispose of drilling fluid components, including excess water, if additives are used; and
 - (g) an acknowledgement that disposal of drilling fluid and drill slurry will occur only on existing cultivated land.
11. Express shall update its criteria for determining appropriate soil handling procedures (Table 1 of the "Express Pipeline Project - Report of the Joint Review Panel") by including in those criteria differing site conditions that may be encountered while continuing to meet its objectives already set out in the written evidence. Express shall file these updated criteria for Board approval at least 15 days prior to construction, together with the final construction alignment sheets showing the related soil handling procedures.
12. With respect to the vegetation inventory that Express will carry out in the spring, the methodology shall clearly differentiate between the two methods, one for determining general vegetation characterizations needed for the revegetation program and significant plant communities (including fescue grasslands), and the other for determining additional rare plant species.
13. The information filed in regard to the vegetation inventory shall include details of additional significant vegetation communities and rare plants, including Express's specific measures to address those communities/species.

14. In regard to Express's proposal to restore rare plants by relying only on regeneration from the seed bank, Express shall rely additionally on the other methods provided, such as avoidance, or restoration techniques such as sod salvage and transplants, when plants with a designated status are encountered.
15. The criteria to determine significant remnants of fescue grasslands shall be submitted to the Board for approval in conjunction with the results of the vegetation survey. Express shall also provide to the Board its measures to minimize effects on any significant areas of fescue grassland anticipated to be encountered.
16. Express shall, at least 30 days prior to the commencement of construction, file with the Board for approval, the final Reclamation Plan. This plan shall include and/or address the following factors:
 - (a) the considerations and special measures associated with a spring clean-up, including those measures adduced during the proceedings;
 - (b) specific references, such as appropriate regulatory authority, reclamation officer, special areas officer, shall be clearly identified (i.e. provincial or federal authority);
 - (c) with respect to mitigation options, the reclamation plan shall incorporate the criteria adduced during the proceeding, and where criteria have not been presented, Express shall provide its criteria for determining its range of mitigation options; and
 - (d) the final seed mixes, including a description of any changes to the seed mixes from those proposed and the reason for those changes.

Any comments received from the stakeholders on the Draft Reclamation Plan shall be attached as an appendix to the final Reclamation Plan, including a statement as to whether the comments were incorporated into the Plan and, if not, the reasons why they were not included.
17. Express shall file for Board approval, at least 10 working days prior to the commencement of construction, the sediment control plan for the South Saskatchewan River along with comments from the DFO.
18. If blasting is required at the South Saskatchewan River crossing, Express shall file with the Board for approval, at least 15 working days prior to construction: the blasting plan; comments from the DFO on the plan; and any DFO permits as required.
19. In regard to the slope restoration plans for the South Saskatchewan River, Express shall file for Board approval, at least 30 days prior to the commencement of construction: the details for channel restoration, including any habitat features; a slope grading and restoration plan for the banks and valley walls; and comments from the DFO on the above-noted plans and measures.
20. With respect to the Red Deer River crossing, Express shall file for Board approval, at least 30 days prior to the commencement of construction, a slope grading and restoration plan for the valley walls (upslope of the directional drill area) and comments from the DFO on these plans.

21. In regard to the proposed directional drill of the Red Deer River, Express shall file, prior to the commencement of any directional drill construction activities, a detailed drilling fluid plan addressing the methods of drilling fluid containment and storage, and specific methods for recycling the drilling fluids.
22. Express shall file with the Board, at least 30 days prior to the commencement of construction, the results of further surveys for Swift Fox, Sharp-tailed Grouse and Sage Grouse, including Express's specific measures to address any conflicts.
23. Express shall file with the Board, at least 30 days prior to the commencement of construction, the noise assessment for the booster pumps.
24. Express shall file the information, regarding further mitigation measures for mainline valves with the Board for approval at least 15 days prior to the commencement of construction.
25. Express shall contact the operators/managers of all potentially affected campgrounds and apprise the Board of any concerns raised by the responsible operators and how these concerns have been addressed by Express.
26. With respect to archaeological, palaeontological, and heritage resources, Express shall file with the Board, at least 30 days prior to the commencement of construction:
 - (a) confirmation that all of the First Nations identified have been contacted, and afforded an opportunity to identify any concerns that they may have with the proposed routing;
 - (b) a summary of First Nations' concerns and how these concerns have been addressed by Express; and
 - (c) comments received from Alberta Community Development, including any further mitigation.

During Construction

27. If any previously unidentified significant plant communities or plants with a designated status are discovered during construction, Express shall, in consultation with the appropriate regulatory agencies, avoid, relocate, or restore those areas.
28. To identify previously unidentified plants with a designated status or significant plant communities during construction, Express shall retain, in addition to the Environmental Inspectors, a specialist with a botany background and previous experience.
29. In addition to its commitment to wash all tracked equipment and wheeled vehicles prior to moving onto the right-of-way, to prevent the spread of weeds into native prairie communities, Express shall ensure that: pressure hoses are used in cleaning all the equipment to remove plant material; the equipment is cleaned each time before entering the Sage Creek Grazing area; and equipment is cleaned only in an area of previously disturbed land.

30. Express shall notify the Board within 12 hours of an inadvertent mud return occurring within the instream portion of the Red Deer River, and advise the Board of the efforts that have or will be taken to seal the leaking area and any mitigation measures to address environmental concerns.
31. If any previously unidentified significant habitat features/specialized habitat for wildlife with a designated status, nesting habitat for song birds and any raptors are discovered during construction, Express shall, in consultation with the appropriate regulatory agencies, avoid, relocate, or restore those features or areas.
32. Express shall retain a specialist with a wildlife background, including experience in identifying wildlife and their habitat features, to identify such features during construction. The wildlife specialist shall be in addition to the Environmental Inspectors.
33. In addition to Express's commitments in regard to the Prairie Rattlesnake, the experienced biologist shall be required to monitor and handle all snakes with a designated status in accordance with the commitments set out for the Prairie Rattlesnake.
34. Express shall implement a worker awareness program in regard to the potential for wildlife mortalities along roads, and its workers shall maintain reduced speeds along the right-of-way, along access roads, and where feasible, along secondary roads. Off right-of-way traffic shall be prohibited, except for designated access routes.
35. The pre-construction worker awareness programs to which Express has committed, and in addition, the need to alert workers to avoid disturbance of stone features, shall be implemented. Access to the right-of-way shall be controlled and traffic off of the right-of-way shall be prohibited except for designated access routes.

Post-Construction

36. Express's commitment to develop a monitoring program to measure fugitive emissions of hydrocarbons arising from mainline valves and at pump stations shall be carried out in consultation with Environment Canada and a copy of the plan shall be provided to the Board.
37. A copy of Express's action plan under the federal Voluntary Challenge and Registry Program to deal with greenhouse gas emissions arising directly from the operation of the Project shall be provided to the Board and Environment Canada. The action plan shall include annual calculations of greenhouse gas emissions.
38. Express shall:
 - (a) notify the Board of any noise complaint(s) received in respect of the operation of its pump stations and apprise the Board of any measures that have been taken to address the complaint(s); and
 - (b) file with the Board, within eight months after the commencement of operation of the pump stations, a monitoring report for each pump station detailing the results of an appropriate monitoring program. This report should include, but not be limited to, the noise emission

levels at the source, the fenceline, and the three closest residences at the maximum operating level.

39. Express shall file with the Board a post-construction environmental report within six months of the in-service date for the Express Pipeline Project. The post-construction environmental report shall set out the environmental issues that have arisen and shall:

- (a) indicate the issues resolved and those unresolved; and
- (b) describe the measures Express proposes to take in respect of the unresolved issues.

Express shall file with the Board, on or before 31 December following each of the first three complete growing seasons subsequent to the filing of the post-construction environmental report referred to above:

- (a) a list of the environmental issues indicated as unresolved in the report and any that have arisen since the report was filed, including details on the monitoring of the following items:
 - (i) the effectiveness of the reclamation program in areas of native pasture, including in the Sage Creek Grazing area and any significant areas of northern fescue (if found), the vegetation composition on the right-of-way in comparison to native vegetation off the right-of-way;
 - (ii) the effectiveness of the measures to reduce cattle-caused damage to revegetated areas;
 - (iii) the locations of, and the reasons for, any alternate soil handling procedures implemented, and a discussion of the positive or negative effects of this activity;
 - (iv) the effectiveness of the reclamation program at the South Saskatchewan River crossing, and the condition, including stability and revegetation, of the banks of the South Saskatchewan River;
 - (v) for all plant and wildlife species with a designated status, including habitat, that are encountered by construction activities, the comments from the appropriate regulatory agencies, the mitigation measures undertaken, and the success of those measures;
 - (vi) the locations of any areas of water impoundment and the measures being undertaken to address the situation; and
- (b) a description of the measures Express has taken or proposes to take in respect of those issues.

40. Express shall file its methodology for determining reclamation success with the Board for approval within 15 days after the in-service date. This should include, but not be limited to: comments from the Advisory Committee; objectives for reclamation success, including any

standards that the Applicant intends to adopt; details on the frequency of monitoring; and details of the sampling program. Express should also periodically review this methodology with the Advisory Committee and provide any updates to the Board.

41. Unless the Board otherwise directs, this certificate shall expire on 31 December 1998 unless the construction and installation of the proposed Express Pipeline has commenced by that date.

